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Diag. Chart No. 8556-1

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

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DESCRIPTIVE REPORT.

Hyd. Sheet No. *2981*

See report for 2898 Top.
LOCALITY

*Uyak Bay, Kodiak
Island, Takli Bay,
North Shore Shelikof
Straits*

1908

CHIEF OF PARTY:

H. C. Benson

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Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

Type of Survey *Hydro & Topo*
Field No. _____ Office No. _____

LOCALITY
State *Alaska*
General locality *Uyak Bay*
Locality *Kodiak Island*

1908
CHIEF OF PARTY
H. C. Benson

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DATE _____

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Department of Geological and Atmospheric Sciences
Geological Survey

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET No. 3.

"Uyak Bay - Larsen's Bay and West shore of Uyak Bay to Uyak".

(This sheet is a continuation of Sheet #1 at its northern limits.)

I. THE WEST SHORE.

The west shore of Uyak Bay is characterized by high rocky bluffs from Uyak to the entrance of Larsen's Bay. They consist for the most part of upturned slate. The shore is very rocky and the only good landing place is about 600 metres south of triangulation signal "Stan".

II. LARSEN'S BAY.

Larsen's Bay is one of the best anchorages in Uyak Bay. The north shore of the bay is rocky and bold but the south shore is low and consists mostly of spits formed by the action of the tide.

In entering the bay, there is one serious danger to be avoided. This is a rock, awash at low water which lies 250 metres N.W. of hydrographic signal "Sun". The channel on both sides of this rock is good. However, the southern side is more easily distinguished, being marked on the south side by hydrographic signal "Sun" which is a black rock about 20 ft. high, detached from the shore and may be passed within 50 metres. It forms a good landmark on entering the bay. After passing this, head for the mound on the end of the long spit (hydrographic signal "Lap") and the turn into the bay should not

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be made until the old A.P.A. cannery (hydrographic signal "Nap") opens at least half a point from the eastern shore (triangulation signal Entrance) in order to avoid the mud flats on that side.

The tidal current in this entrance averages about 4 knots per hour. *during Spring tides*

Good anchorages may be found off the old cannery, or south of the long spit (hydrographic signal Lap), or at the head of the bay. Water may be obtained at any of the small streams represented on the sheet.

III. METHODS.

This sheet, being a continuation from Sheet #1 was done on a plane table triangulation with the same stadia base.

H.C. Sension,
Asst C & G S.

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Descriptive report for hydrography is embodied in descriptive reports of topographic sheets and was not furnished separate.

DESCRIPTIVE REPORT TO ACCOMPANY
SHEET No. 1.

*C. H. D.,
March 3, '09.*

"Uyak Bay--Amook Island and Vicinity, including Zachar Bay."

I. GENERAL DESCRIPTION.

The shore in general is very rocky and surmounted by high bluffs composed mostly of upturned slate. These are rapidly worn away and are frequently continued underneath the water in outlying rocks and ledges. The only good landing places are found in the small protected places inside of projecting points or bluffs where the beaches are made up of shingle.

The bay is surrounded by mountains 2000 to 4000 ft. in height whose slopes are steep and covered with stunted trees, thick undergrowth, and tundra to an elevation of about 1000 ft. Above this is mostly grass and moss. The summits are practically bare with out-cropping ledges. Frequent landslides occur and a particularly distinctive one may be seen on the west side of the bay nearly opposite the south end of Amook Island forming a good landmark. There are many mountain streams on the east and west shores of the bay but very few on Amook Island.

In approaching this section of Uyak Bay from the lower end, Amook Island is easily distinguished. It has the aspect of a

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low, dark range with a background of high, snow-capped mountains. The point at the entrance of Zachar Bay is a broad succession of low hills which runs back gradually to a high ridge.

II. MAIN FEATURES, DANGERS AND ANCHORAGES.

The shore on the north end of Amook Island is very rocky and slopes gradually out to a distance of about 400 metres. Vessels should not approach too closely to this shore.

The south end of Amook Island is a bluff about 40 ft. high, the end of which is broken away. Bearing S.W. from this point and distant 850 meters is a pinnacle rock, awash at low water, which may be safely passed on either side. A mile and a half south of this point on the eastern shore of the bay is a ledge of rocks extending about 200 meters from the end of a shingle spit. The outer point of this is always visible and may be safely passed within 50 meters.

Alf's Island is low and the main part is covered with small trees. The northern or lower end of it is a low bluff and should be given a wide berth. However, there is a good anchorage, 3fthms. mud bottom, for small vessels in the bight on the north side, inside of the small island. On entering this, the passage to west of the small island should be used.

The bay on the west side of Alf's Island is full of sunken rocks and is dangerous ground. This district is within the limits defined by Alf's Island, the triangulation signal "Twin", and

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the hydrographic signals "Leg" and "Tom". A clear passage, however, may be found on a line running directly up the bay through the middle of the space.

The western shore of Uyak Bay from triangulation "Twin" to the northern limit of the sheet is guarded by many sunken rocks and should not be approached too closely.

The cove on the north side of triangulation signal "Brush" forms a good anchorage, 10 fthms. mud bottom, in all easterly and southerly winds but should be entered on its southern side. The northern side is barred by a reef of rocks running in a southerly direction, parallel to the shore line for about half a mile, beginning at the small island, partly awash and partly exposed at low water; also foul ground between the island and hydrographic signal "Rock"; which is a rock showing at all stages of the tide.

The cove on the south side of hydrographic signal "Bum" is a good anchorage in all except southerly winds.

III. THE INNER OR EAST PASSAGE.

The inner or east passage around Amook island is only useful to small vessels as a short cut to points inside of the island.

Good anchorages for such may be found at either the north or south end of the narrow channel, three miles from the north entrance of the passage. The rock in the middle of the opening (hydro-

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graphic signal "Tip") is always showing above water and must be passed on the west side. The east side is blocked by a ledge of rocks. The north anchorage is in the bight on the east side opposite Brown's house. The bayou at the mouth of the river which runs down at this point is very shallow. The south anchorage is just around the point after passing the channel and in the inner bay.

The passage is good from there until the spit, 2 1/2 miles from the narrow channel, is reached. This should be given a wide berth. From there, the west shore should be followed until the Kodiak Mining Company's camps are reached. The remainder of the passage is good.

IV. ZACHAR BAY.

The point at the entrance of Zachar Bay is surrounded by sunken reefs and should be given a wide berth on entering the bay.

A dangerous reef lies about due North from the end of the point and distant about half a mile (visible at half tide).

Vessels should keep to the northern shore on entering the bay.

The north shore of Zachar Bay is pretty regular but an anchorage may be found about four and a half miles from the entrance, on the east side of a point characterized by an isolated black rock about 20 ft. high situated at low water line. Good water may be obtained here.

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The south shore is very irregular but the only anchorage that was tested is in the cove about a mile and a half from the entrance of the bay. The stream at the head of this cove is brackish.

The upper end of the bay is not navigable for about the last two miles. The ground consists of mud-banks, dry at low water, and heavy banks of eel-grass where the water is shallow. These banks begin about 1000 meters below the high isolated rocks lying west of the hydrographic signal "Tom".

V. METHODS.

The work is done on a plane-table triangulation with a stadia base as no triangulation had been done when the topography was started.

The small map showing the head of Zachar Bay is not changed in azimuth from the rest of the sheet.

H. C. Denson
Asst. C. & G. S.

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DESCRIPTIVE REPORT TO ACCOMPANY

SHEET No.2.

"Uyak Bay--Alf's Island to Head of Uyak Bay".

This sheet is a continuation of Sheet #1 at its southern limits.

I. GENERAL DESCRIPTION AND DETAILS.

The shore in this section of the bay is not so bold and rocky as in the lower part of the bay and going up toward the head, the rocky bluffs give way to long shingle spits formed by the action of the tide.

The mountains bordering the bay are from 3000 to 4000 ft. in height and very steep. The occurrence of mountain streams is more frequent than in the lower bay and good water may be obtained at any of them.

The last four miles of the bay is not navigable on account of the mud flats, covering the whole area, which are dry at low water. These begin about half a mile south of triangulation signal "Grass".

The large island just to the south of Alf's Island is surrounded by high bluffs and covered with small trees and bushes. The ^{waters} ~~ground~~ between this and Alf's Island ^{are} ~~is~~ foul. The bay running up to the westward of this island is an excellent anchorage, well protected and free from dangers. Good water may be found in the two small streams on the west side.

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The cove just south of the spit where triangulation signal "Trap" is located, forms a good anchorage for winds blowing up from the lower end of the bay. Water may also be obtained here.

II. METHODS.

The work was done on a plane table triangulation with a stadia base as no triangulation had been done when the topography was started. The same base was used as that for Sheet #1.

H. C. Benson
Asst. C. & G. S.

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DESCRIPTIVE REPORT TO ACCOMPANY
SHEET NO. 5.

"Approaches to East and West Arms of Takli Bay".

I. GENERAL DESCRIPTION.

The country in general is volcanic in character with underlying deposits of stratified rocks. The mountains are from two to four thousand feet in height and the various layers of igneous rock outcrop in high terraces making them very nearly inaccessible.

Many high bluffs, columnar in structure, may be seen along the shores and these break away in great blocks making the shores very bold and rocky. The landing places may be found in the small protected places where the beaches are composed of gravel and small stones.

The islands in the west arm of the bay are composed of dykes which are columnar in structure and most of the projecting bluffs are narrow walls of rock which are frequently continued underneath the water in sunken ledges. The dykes from Takli Island and those small islands lying outside run very nearly S.E. and N.W.

Upon approaching the bay, a very distinctive landmark may be noted. This is the end of the middle peninsula which is a bare slope of light brown sandstone in distinct layers tilted at an angle of about 10° and slightly curved upward on the left side. This is slightly obscured from the S.E. by the small high island lying off the end of it.

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The East arm of the bay is open with no obstructions, but the west arm is filled with small islands and the shore line is very uneven. The largest of these is Takli Island, the top of which appears as a high hill with three nodes and an uneven, broken slope to the south and east. The N.W. side ends in a sheer bluff.

Atushagvik Cape is low with a fairly smooth slope running back to a high hill which ends in a sharp bluff on its northern and western sides.

II. THE EAST ARM.

The fairway in entering the East arm of Takli Bay is unobstructed although the west side of Atushagvik Cape should be avoided. *Do not approach closer than 1/2 mile*

An excellent anchorage and harbor of refuge may be found in the cove just north of hydrographic signal "Bowl". This is easily distinguished by a 150 ft. bluff on the point at the entrance. Good water may be found here at the stream on the east side of the cove. ("Russian Anchorage".)

Above the point designated by hydrographic station "Jap", the shore is very broken and rocky and should be avoided. The survey was not carried up this arm of the bay far enough to discover and test any other anchorages.

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III. THE WEST ARM.

The outlying islands are not very high but are bold and rocky. The ledges extending off these to the south and east run out to about 1000 metres off shore and this section should be given a wide berth in passing.

The inner or northwestern end of Takli Island is a high precipitous bluff rising to the top of the hill. Between this end and the main land is a good channel through which an entry may be made into the numerous bays and inland waters of the west arm.

About three-quarters of a mile off the end of the middle peninsula (hydrographic signal "Point") is a small island, 250 ft. high. Between this island and the peninsula is another channel running into the west arm and the passage is good through to the Takli Island channel although vessels should favor the southern shore.

The opening between the middle islands (hydrographic signal "Chick") and the outer islands, while being the broader passage is dangerous on account of rocks and shoals.

The inner line of islands running westward from the end of the middle peninsula enclose a bay in which may be found a good anchorage and harbor refuge with good water, in the bend on the north side. This bay should be entered through the opening at the north end of the Takli Island channel. The islands enclosing this bay are flanked by many rocks and should not be approached too closely.

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The narrow openings between them should not be used.

Good shelters for small boats may be found in the little bays on the north side of Takli Island.

IV. METHODS.

This work was done on a stadia base from triangulation signal Atushagvik and carried ahead by traverse. No triangulation had been done and no signals had been placed until the work was well under way after which the plane table triangulation was used.

H. C. Denson,
asst. C & G S.

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DESCRIPTIVE REPORT TO ACCOMPANY
SHEET NO. 4.

"Bay between Cape Kuliak and Atushagvik Cape".

I. GENERAL DESCRIPTION AND MINOR POINTS.

The country in general is volcanic in character with underlying deposits of sedimentary rock. The lava flows have evidently been horizontal and under water, being subsequently upraised, thus forming high, precipitous, columnar bluffs. These are breaking away in large boulders.

The shore in general is composed of these large boulders, but fair landing places may be found in some of the more sheltered sections and on the beaches near the two swamps at the head of the bay.

The bay affords very little protection and is a dangerous place in all easterly winds. The shores are dangerous to approach, being barred by many sunken reefs and shoals, some of which are awash at low water.

The only apparently fit place for vessels to anchor seems to be at the very head of the bay. However, this was not tested.

II. METHODS.

The work was done almost entirely by traversing, from a stadia base, no triangulation having been done and no signals being available except triangulation signal Kuliak and triangulation signal Atushagvik, both of which were useless after having rounded the point.

H. C. Denson
Asst. C. & G. S.

Object and Description		Latitude	D.M.	Longitude	D.P.	Remarks	
Ab	Whitewashed rock	57	28	1553	54	307	
Arm	Flag on pole	57	32	40	154	05	723
Bag	Banner in tree	57	17	1354	153	41	433
Bag	Whitewashed rock	57	23	1355	153	50	401
Bot	Whitewashed rock	57	30	696	153	48	829
Bar	Banner in tree	57	26	1767	153	48	577
Bar	Whitewashed rock	57	21	1410	153	46	14
Bark	Whitewashed rock	57	23	1745	153	49	680
Best	Whitewashed rock	57	32	1558	153	49	721
Bill	Whitewashed rock	57	22	863	153	46	175
Bin	Whitewashed rock	57	32	1375	154	00	307
Bob	Whitewashed rock	57	28	48	153	48	765
Bow	Banner in tree	57	29	636	153	48	687
Bug	Whitewashed rock	57	18	1491	153	43	26
Bum	Whitewashed rock	57	29	1598	153	53	113
Bun	Whitewashed rock	57	34	259	153	57	894
Cab	Whitewashed rock	57	29	302	153	54	648
Cap	Whitewashed rock	57	31	1705	154	02	770
Car	Whitewashed rock	57	21	992	153	47	945
Cat	Whitewashed rock	57	28	1421	153	49	245
Coot	Flag on pole	57	31	1483	154	04	966
Cop	Flag on pole	57	33	62	153	57	122
Cot	Whitewashed rock	57	27	894	153	49	387

Object and description	Latitude	D.M.	Longitude	D.P.	Remarks
Cow Banner	57	18	1176 153	42	441
Cross	57	19	145 153	43	785
Dab Whitewashed rock	57	29	1658 153	54	747
Dad Whitewashed rock	57	32	875 153	56	454
Dan Whitewashed rock	57	32	1134 153	49	326
Den Whitewashed rock	57	31	284 153	48	945
Dick Whitewashed rock	57	22	858 153	49	68
Dob Whitewashed rock	57	28	540 153	48	749
Dog Whitewashed rock	57	31	928 153	49	237
Door Whitewashed rock	57	32	509 153	48	800
Dot Whitewashed rock	57	25	1116 153	48	356
Dote Whitewashed rock	57	24	982 153	48	332
Dub Whitewashed rock	57	23	503 153	49	662
Duck Whitewashed rock	57	31	565 153	48	356
Entrance Pole signal	57	32	1566 153	58	824
Fall Whitewashed rock	57	20	1624 153	45	285
Flag flag on pole	57	28	1496 153	48	612
Fog Whitewashed rock	57	32	237 154	00	68
Fog flag on pole	57	18	669 153	44	363
Foot flag on pole	57	31	1262 154	05	906
Fop Whitewashed rock	57	33	444 153	51	977
Fun Whitewashed rock	57	37	630 153	58	441
Gass Whitewashed rock	57	32	1000 154	02	323

Object and description		Latitude	D.M.	Longitude	D.P.	Remarks
Gun	Whitewashed rock	57	33	611 153	58	138
Hail	Whitewashed rock	57	19	1105 153	44	495
Hal	Whitewashed rock	57	23	1623 153	51	116
Hat	Whitewashed rock	57	27	1385 153	49	425
Hyd. 1	Pole signals	57	36	647 153	58	611
Hyd. 2	"	57	37	482 153	51	636
Hyd. 3	"	57	37	75 153	50	983
Id	Flag on pole	57	28	1000 153	48	950
Jag	flag on pole	57	18	95 153	42	338
Jig	flag on pole	57	28	1705 153	48	713
Kin	Whitewashed rock	57	32	475 154	04	300
Kite	Whitewashed rock	57	32	149 154	01	10
Lap	flag on pole	57	32	988 153	59	381
Leg	Whitewashed rock	57	24	112 153	50	572
Luck	Whitewashed rock	57	31	1053 153	48	512
Mag	Whitewashed rock	57	23	702 153	49	150
Mall	Whitewashed rock	57	24	634 153	49	207
Mar	Flag on pole	57	20	329 153	46	785
Mat	Whitewashed rock	57	28	177 153	49	392
May	Whitewashed rock	57	28	961 153	48	567
Mike	Whitewashed rock	57	20	864 153	45	100
Mill	Whitewashed rock	57	27	864 153	48	645
Mob	Whitewashed rock	57	28	273 153	48	827

Object and description		Latitude	D.M.	Longitude		D.P.	Remarks
Mop	Flag on pole	57	32	1602	153 50	787	
Moss	Whitewashed rock	57	32	1093	154 02	175	
Muck	Whitewashed rock	57	31	931	153 48	355	
Mut	Flag on pole	57	19	1242	153 46	263	
Nap	South Gable of old Camery	57	33	2	153 59	194	
Ned	Whitewashed rock	57	24	1453	153 50	433	
Nell	Flag on pole	57	20	750	153 47	390	
Nest	Whitewashed rock	57	33	242	153 50	14	
Night	Whitewashed rock	57	32	695	154 03	472	
Not	Whitewashed rock	57	27	350	153 49	371	
Ore	Whitewashed rock	57	31	1675	153 48	536	
Pace	Whitewashed rock	57	30	1200	153 48	977	
Par	Whitewashed rock	57	23	1369	153 50	124	
Pat	Whitewashed rock	57	22	1271	153 46	220	
Peb	Whitewashed rock	57	31	508	153 49	294	
Ped	Whitewashed rock	57	32	840	153 57	254	
Peg	Whitewashed rock	57	23	1432	153 50	447	
Pell	Whitewashed rock	57	23	1200	153 50	134	
Pin	Whitewashed rock	57	37	126	153 58	412	
Pot	Flag on pole	57	26	1283	153 49	410	
Rain	Flag on pole	57	18	447	153 43	983	
Rock	Pinnacle rock	57	31	753	153 52	937	
Rot	Whitewashed rock	57	30	947	153 53	45	

Object and description		Latitude	DM.	Longitude	D.P.	Remarks
Sam	Whitewashed rock	57	33	1465 153	50	538
Sap	Whitewashed rock	57	32	826 154	02	908
Sat	Whitewashed rock	57	28	758 153	49	315
Sill	Flag on pole	57	20	666 153	46	980
Snow	Flag on pole	57	18	135 153	43	751
Son	Whitewashed rock	57	31	433 153	48	906
Sop	Flag on pole	57	32	494 153	49	709
Spit	Flag on pole	57	29	271 153	49	104
Spot	Whitewashed rock	57	26	376 153	48	468
Stripe	Whitewashed rock	57	24	397 153	47	872
Stump	Flag on stump	57	29	1752 153	49	495
Suc	Whitewashed rock	57	33	854 153	50	329
Sun	Whitewashed rock	57	32	1123 153	58	100
Tail	Whitewashed rock	57	19	1815 153	44	778
Tan	Whitewashed rock	57	33	537 153	51	716
Tar	Fl Whitewashed rock	57	31	1848 154	01	880
Tat	Whitewashed rock	57	23	627 153	46	924
Ted	Flag on pole	57	33	127 153	58	361
Tin	Whitewashed rock	57	32	1296 154	01	80
Tip	Whitewashed rock	57	31	760 153	49	84
Tom	Whitewashed rock	57	24	714 153	50	564
Top	Whitewashed rock	57	26	595 153	49	461
Tree	Whitewashed tree	57	31	149 153	49	517

Object and description	Latitude	D.M.	Longitude	D.P.	Remarks
Wash Whitewashed rock	57	29	17 153 48	494	
Whim Whitewashed rock	57	32	94 154 00	443	
Wind Flag on pole	57	37	614 153 58	865	
X Flag on pole	57	25	45 153 50	523	
Y Flag on pole	57	24	1680 153 49	900	

V.E.C.
Mar. 10, 1909.

J.W. Dyer
CHB

HYDROGRAPHIC SHEET NO. 2981

3/10/9

Uyak Bay, Kodiak Island, Alaska, by Asst. H. C.

Denson in 1908.

TIDES.

Harvester Island

	ft.
Mean lower low water, or plane of reference on staff	3.3
Lowest tide observed " "	-0.2
Highest " " " "	20.8
Mean range of tide	11.5

Applied 7/30-09

A.E.

Coast and Geodetic Survey
MAR 10 1909
TIDAL DIVISION

Soundings plotted by Asst. H. C. Denson
Verified by H. C. Denson

Hyd Sheet No 2981

Apr. 20, 1909.

The positions, where lines begin and end, were not described and the course was not recorded at the beginning of lines.

In some cases the time at which angles were taken is very uncertain as the position numbers were placed only at the left of the angles and not at the left of the time to which they refer.

In converting fractions, 0.5 or more was written as the next whole foot while the rule now is that all fractions of less than 0.8 shall be omitted when plotting soundings in even feet.

The entrance to Larsen Bay is not fully developed.

The sheet was plotted and checked by the field party.

H. L. Simmons