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4103b

C. & G. SURVEY
L. & A.
MAR 26 1924
Acc. No.

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

State: S. E. Alaska

11-5813

DESCRIPTIVE REPORT.

Topographic Sheet No. 1 4103a
4103b

LOCALITY:

Clarence Strait

~~Lower Kasaan Bay~~

(a) Kasaan Bay - Patterson I to Baker Pt.

(b) " " - Scowl Arm " " "

1924

CHIEF OF PARTY:

F. B. T. Siems

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DESCRIPTIVE REPORT

to accompany

Sub-plan of Kasaan Cannery

Topographic Sheet #1 of Kasaan Bay

This sub-plan includes the buildings and docks of the Booth Fisheries Company's salmon cannery, the native village of Kasaan and about three quarters of a mile of the adjacent shoreline on a scale of 1:10,000.

KASAAN

Kasaan is a native village on the north shore of Kasaan Bay. It has a post-office and wireless communication during the cannery season. Fishermen's supplies may be obtained from the company's store and fresh water at the cannery dock. The main wharf has a face of about 110 feet with 32 feet of water at lower low water. A dangerous reef makes out 120 meters from the point near the western end of the village.

SURVEYING METHODS

As signal "Bake" was the only triangulation signal visible from the village of Kasaan it was first necessary to build two temporary signals Ku and Klux which could be seen from most every part of the village. These signals were located by cuts from the triangulation stations "Bake" and "Ann". Then the prominent landmarks in the village such as the cross on the church, the steeple on the school-house and the derrick on the oil-dock as well as the peaks of various buildings, wireless poles piles etc. were located by cuts from Ku, Klux and "Bake". The shoreline and outlines of buildings were finally located by the usual plane-table methods. It was possible at most of the set-ups to orient the table by sighting on signal "Bake".

This work was done originally on a small piece of celluloid and later transferred to topographic sheet #1.

Allen A. Parker
(Topographer)

Approved,
J.B. Williams
Chief of Party

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET NO. 1, KASAAN BAY.

This topographic sheet covers the lower part of Kasaan Bay, joining sheet No. 4002 at Grindall Passage on the east side of the Bay and topographic sheet No. 3859 on the west side of the Bay. It extends up the bay as far as Baker Point, where it joins sheet No. 2 of Kasaan Bay. The topography was extended in Skowl Arm to join surveys of Saltery Cove and MacKenzie Inlet. The survey was made under the Director's instructions of April 19, 1924.

This sheet is in two sections, part of the topography being done on each projection both of which cover the same area. This was made necessary by an accident which wet the first sheet (the sheet showing the shoreline on the N. E. side of the Bay). It was found that the sheet was distorted to such an extent that it would be inaccurate to work further on it, as much of the work had to be done by plane table triangulation. The section of shoreline on the N. E. side of the Bay between Stations TURF and TED was adjusted on the signals Cliff, Dig, Red, Lit, Oar, and Les which were cut in on the second sheet. Excepting this, each part of the shoreline was inked on the sheet on which it was done. The projection was plotted on the Kasaan Bay datum. Triangulation observed and computed later shows this datum to differ from the approximate S. E. Alaska datum in azimuth by $0^{\circ} - 7' - 22.2$. The logarithmic difference in distance is 0.000037.

GENERAL DESCRIPTION OF COAST. The coast as a whole is of steep rocky character, in places being outcropping rock and in others crumbled rock and boulders. At the point 400 meters S. E. of signal "Cliff" there is a rock cliff which rises almost vertically from the water's edge to an elevation of 530 feet. The rock face is free from vegetation and forms a prominent landmark. In Skowl Arm, a new area not previously shown on the chart was surveyed on the north side, and two lagoons were found here. The entrances to these were bare at low water and due to lack of time they were not surveyed. A rough sketch however shows their location and general features. The south side of Skowl Arm is made up of numerous small islands, rocks, and reefs of very irregular character. Small fishing boats navigate around among the islands but it is not recommended for general use.

OFFLYING DANGERS. There are several offlying rocks all of which are plotted on the sheet. A group of rocks lies about 300 meters south (true) from the southernmost part of Grindall Point. Different ones of these bare at different stages of the tide and two of them are bare about 2 feet at high tide. A rock 545 meters south (true) of signal "Moss" bares at low water. This rock is dangerous to boats running along the coast and has no definite steering range by which it can be avoided. A rock 425 meters S.S.W. (true) from signal "Les" bares at $3/4$ tide and at low tide has a flat reef around it for a distance of about 80 meters. A bare cliff 820 feet high 600 meters N.E. $\frac{1}{2}$ N. (true) from this rock is used as a landmark in avoiding the rock. A rock 190 meters N.N.E. (true) from station "NEW" bears at low water. Several small rocks around the south end of Long Island bare at low water. A rock 600 meters west (true) from signal "Pat" (west side of Long Island) bares at $3/4$ tide, at low tide this rock extends for about 200 meters in a N. W. and S. E. direction. No steering range is available for this rock.

BLACK ROCK. One mile N. by W. (true) of Kasaan Point bares 9 feet at M.L.L.W. at its highest point. Smaller surrounding rocks bare at various stages of the tide to the extent shown. A steering range formed by the right tangents of Daisy Island and a small grassy island E. by S. (true) from Daisy Island will clear Black Rock by a distance of $1/8$ mile. By keeping the right tangent of Daisy Island in range with the left tangent of Long Island Black Rock may be cleared by a margin of one half mile.

In Skowl Arm, the two rocks, one designated as signal "Tok", and another 100 meters south (true) from signal "Lak", have temporary beacons erected on them by fishermen. The beacons consist of a single pole about 3 inches in diameter securely erected on the rock and extending about 5 feet above high water with a small white flag tacked to the top of the pole.

Other rocks shown on the sheet need no further description.

LANDMARKS. Approaching from Clarence Strait, Grindall and Patterson Islands appear as low tree covered islands. High Island appears as a prominent and outstanding tree covered hill. Another prominent hill is the one on the south end of Grindall Point. It is roughly conical in shape and is visible from nearly all directions. The elevation of 625 feet includes the height of the trees. The bare rock cliffs near signals "Ted" and "Moss" are

easily distinguishable and the steep rocky cliff 400 meters south of signal "Cliff" is particularly prominent. The above mentioned cliff near signal "Les" should also appear on the chart.

Kasaan Point appears as a bold rounding point with wave worn rock cliffs about 25 feet high.

Long Island appears as a low island with no outstanding hills. A rocky cliff at signal "Moon" on the south side is prominent in entering the channel east of Long Island. This cliff is about 80 feet high and is black in color. The spit of land at signal "Spit" is low and barren of trees. A small clump of bushes grow about half way out on the spit.

ANCHORAGES. Anchorage for small boats is to be found in the land locked inlet on the N. E. side of Long Island. The entrance is 4 feet deep at low water in mid channel and is endangered by a rock on the south side one tenth mile N.N.W. (true) from signal "Pit". After entering the narrow channel favor the south side until through the entrance. A number of dolphins have been driven by a nearby cannery for convenience in mooring boats and log rafts.

The lagoon on the S.W. side of Long Island is well sheltered. The entrance however is very narrow and bares at extreme low water.

LIGHTS AND BUOYS. In Saltery Cove a light is established at present on a rock at the position of signal "Alt". This light at present is maintained through the summer by the Straits Packing Company Cannery, in Saltery Cove. A small improvised buoy is also maintained by the cannery on a rock 115 meters off the dock in the position as shown. It is expected that this will be replaced by a standard buoy maintained by the U. S. Lighthouse Service.

SURVEY METHODS. This survey is based upon observed and computed triangulation which was completed ahead of the topography. The planetable was used for filling in on this base and the methods and accuracy used complies with the general instructions for field work. Practically all of the planetable signals were cut in with the planetable from triangulation stations or previously located signals. It is believed that this method saves time and is more accurate.

The signals located in Saltery Cove for use in wire drag were located by planetable triangulation. The dock and cannery buildings were plotted from sextant fixes and distances obtained by pacing.

MOUNT ANDREW MINE is not in operation at this writing. It has no standing wharf. A row of broken pilings are left extending about 75 meters offshore in a southerly direction from the mine buildings. These are of varying heights and all are covered at high water.

W. H. Tyler.
Lt. (j. g.)
(topographer)

approved:
H. Williams
Chief of Party

PLANE-TABLE POSITIONS (Kasaan Bay datum)

Name of Signal	Description	Latitude	D.M.	Longitude	D.P.	Remarks.
Sep	Whitewash	55 - 26	1720	132 - 09	643	
Pile	Part of old fish trap	55 - 26	1787	132 - 09	890	
Far	Whitewash	55 - 27	587	132 - 10	989	
Moss	"	55 - 27	1410	132 - 11	713	
Cliff	"	55 - 29	1433	132 - 13	524	
Dig	"	55 - 29	215	132 - 14	34	
Red	"	55 - 29	852	132 - 14	878	
Lit	"	55 - 29	1228	132 - 15	679	
Oar	"	55 - 29	1304	132 - 15	1014	
Les	"	55 - 29	1600	132 - 16	245	
Gab	S. gable of Mine Building	55 - 30	840 839	132 - 17	889 725	
Egg	Whitewash	55 - 31	529	132 - 20	688	
Bin	"	55 - 31	738	132 - 21	342	
Go	"	55 - 31	1363	132 - 22	683	
Lor	"	55 - 32	497	132 - 24	560	
We	"	55 - 32	834	132 - 25	64	Gable of old Indian house
Miss	"	55 - 30	878	132 - 24	531	
Rim	"	55 - 29	1292	132 - 24	418	
Dun	"	55 - 29	641	132 - 23	902	
Slim	"	55 - 28	1774	132 - 23	819	
Pin	"	55 - 28	1213	132 - 22	654	Highest point of small islet
Mar	"	55 - 28	708	132 - 22	308	
Sup	"	55 - 28	832	132 - 22	176	Top of rock
Rat	"	55 - 28	1100	132 - 22	122	
Won	"	55 - 28	1255	132 - 21	284	
Oat	"	55 - 28	610	132 - 20	663	
Tie	"	55 - 28	300	132 - 20	409	
Top	"	55 - 28	1100	132 - 20	294	Top of bare rock
Ent	"	55 - 28	1496	132 - 19	999	
Round	"	55 - 30	1829	132 - 22	871	
But	"	55 - 30	1462	132 - 22	982	
Son	"	55 - 30	808	132 - 23	436	marked
Will	"	55 - 30	500	132 - 23	270	
Nuf	"	55 - 30	393	132 - 22	850	

PLANE TABLE POSITIONS (Kasaan Bay Datum)

Name of Signal	Description	Latitude	D.M.	Longitude	D.P.	Remarks
Tall	Whitewash	55 - 29	1743	132 - 22	544	
Rat	"	55 - 29	1106	132 - 21	968	
Brown	"	55 - 29	1061	132 - 21	608	
Spit	"	55 - 29	969	132 - 21	173	End of spit
Who	"	55 - 29	737	132 - 20	531	
Moon	"	55 - 29	491	132 - 20	221	Large detached boulder.
Sou	"	55 - 29	385	132 - 19	726	
Green	signal	55 - 28	527	132 - 18	209	marked
Set	whitewash	55 - 28	106	132 - 18	768	
Cov	"	55 - 27	965	132 - 17	671	
Nor	"	55 - 27	359	132 - 16	441	
Rat	"	55 - 26	1293	132 - 16	877	
Sen	"	55 - 26	527	132 - 18	209	
Mor	"	55 - 26	440	132 - 17	1033	
Ray	"	55 - 26	410	132 - 18	298	
Tom	"	55 - 26	498	132 - 19	14	
Rot	"	55 - 26	0	132 - 19	299	
Bog	"	55 - 26	189	132 - 19	793	Highest point of rock.
Pun	"	55 - 26	440	132 - 19	522	
Po	"	55 - 26	708	132 - 19	999	
Tok	rock	55 - 26	783	132 - 20	162	Rock bases 4ft. at M.L.L.W.
Con	whitewash	55 - 26	686	132 - 19	586	
Goon	"	55 - 26	1191	132 - 19	978	
Lag	"	55 - 26	1287	132 - 20	188	top of rock
Has	"	55 - 26	879	132 - 20	1013	
Lak	"	55 - 26	1006	132 - 21	422	
Milk	"	55 - 26	534	132 - 21	861	
Test	"	55 - 25	1335	132 - 22	254	marked
Gal	"	55 - 25	1315	132 - 21	1000	
Hem	"	55 - 26	11	132 - 21	432	
Cub	"	55 - 25	1447	132 - 21	504	
Tank	"	55 - 26	139	132 - 20	928	
Yet	"	55 - 25	1783	132 - 20	693	top of rock

PLANE TABLE POSITIONS near Kasaan Cannery

taken from insert on Topographic Sheet No. 1 (Kasaan Bay Datum)

Name of Signal	Description	Latitude	D.M.	Longitude	D.P.	Remarks
Klux	Banner on pole	55 - 32	462	132 - 24	240	
Cross	--	55 - 32	640	132 - 24	248	Cross on church peak
Steep	--	55 - 32	631	132 - 24	38	Pt. of steeple on schoolhouse
Peak	--	55 - 32	516	132 - 23	847	S. peak of oil (G.I.) bldg.
Der	--	55 - 32	373	132 - 23	875	Derrick on oil dock
Ku	Banner on pole	55 - 32	111	132 - 23	770	

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

INSERT ON SHEET # 1

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. **4103a(insert)**State **S.E. Alaska**General locality **Prince of Wales I.**~~General locality Clarence Strait~~**Kasaan Bay—**Locality ~~Kasaan Canyon~~Chief of party . **F.B.T. Siems**Surveyed by . . **Allen A. Parker**Date of survey . **September & October 1924**Scale **1:10,000**

Heights in feet above

Contour interval feet.

Inked by . . **A.A.P.** Lettered by . **A.A.P.**

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks: This is an insert on Sheet number 1 of Kasaan Bay.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4103a
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TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey, 4103a
No 1 (field number) 4103b

Register No. _____ in two parts. See note under
remarks.

State S. E. Alaska

Prince of Wales I.

General locality Clarence Strait

4103a - Kasaan Bay - Patterson I. to Baker Pt.

4103b - Kasaan Bay - Scowl Arm to Baker Pt.

Chief of party F. B. T. Siems

Surveyed by H. W. Tyler

Date of survey July - September 1924

Scale 1 : 20,000

Heights in feet above mean sea level

? (Contour) interval 100 feet

Inked by H. W. Tyler . . . Lettered by H. W. Tyler

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks: The area covered by this sheet is on two projections,
part of the shoreline being on each projection.