

3914

S. & G. SURVEY
L. O. A.
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *S. E. Alaska*

11-5013

DESCRIPTIVE REPORT.

Topo Sheet No. *3914*

LOCALITY:

*West Coast Princes
of Wales Island -
St. Nicholas Canal*

1921

CHIEF OF PARTY:

J. J. Maher

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Descriptive Report to Accompany Topographic Sheet No. 3914
of Saint Nicholas Canal.

This topographic survey of St. Nicholas Canal was made following instructions from the Director, U.S.C. & G. Survey to T.J. Maher, H. & G. Engineer dated Feb. 12, 1921.

St. Nicholas Canal is a narrow channel in S.E. Alaska, west of Prince of Wales Island, between Noyes Island and No Name Id. *Lulu (J.W.M.)*
At the northeast end it borders the Gulf of Esquibel and at the southwest end, Sea Otter Harbor.

General Description of Shore-line

Approaching St. Nicholas Canal from Sea Otter Harbor, the hills on the west end of No Name Island with elevations of 830' and 710' appear as rounding gradually sloping hills and are not particularly conspicuous. The two islands upon which Tip and Hen are located are plainly visible features. When in the proximity of the rocks at A Isle, Point San Francisco is very prominent, appearing to reach well out into the Canal and to be low in elevation. Proceeding further up the Canal the hills extending from Pt. Sta. Gertrudis south to the hill with an elevation of 920', appear as one range and sloping towards Pt. Sta. Gertrudis. The island upon which A Bend is located is not prominent unless viewed from near the east shore of the Canal. *1040.000 Chart*

Approaching from the Gulf of Esquibel, Pt. San Francisco is prominent; the islands at Tip and Hen may be seen against the east shore-line of the Canal and the peak of 1618' elevation is very prominent, appearing rather sharp at the top with a steep slope to the northeast and a gradual slope to the southwest. The other two hills to the west of this peak appear as rounding hills. The hills and mountains shown on this topographic sheet are dark green in appearance with very little ledge exposed.

The shore-line, above the high water mark is almost extensively rocky ledge with scattered stretches of small boulders and coarse gravel and several sandy beaches of small extent. Where gravel, small boulders or rocky ledge are shown upon the sheet below the H.W. line the shore-line above the H.W. line is, in nearly all places of the same character. Places where no conventional sign is shown below the H.W. line have an abrupt shore-line of rocky ledge. At A Sand, on the west side of the Canal, a sandy point makes out. Just north of Dog on the west shore of the Canal, and near Tip and Hen on the east shore are gravel and rock beaches which make well out at low water. On the west shore between Fik and A Small the shore-line above the H.W. line is composed of reddish and gray, very irregular ledge which extends well back in many places. In the bights in this locality are gravel beaches. On the east shore from Pit to Nek broken rocky ledge extends well back from the H.W. line in many places.

Dangers and Islands.

The point at the southwest end of No Name Island between Nek

and @ Pog is foul for approximately 100m. from the shore-line. Rocky reefs extend out along the point and in heavy weather breakers may be seen 100m. and possibly 150m. from the H.W. line. There is growing kelp in the foul area. This kelp extends north to the rock 270m. 300° from @ Pit. This rock bears at 1/2 tide and appears to be the end of a reef running out from the shore. About 20m. inshore from this rock is another which does not cover at high water. This rock is small and not readily seen. It is awash at higher high water.

Near A Isle are two rocks approximately six meters wide, each, A Isle is located on the N'ly of the two. They are approximately two feet above H.W. in elevation and are flat.

550m. 158° from @ Zoc is a single rock which bares at 1/2 tide. This appears to be a pinnacle rock. Approximately half way between this rock and the shore-line is growing kelp. ~~No sunken rock was located in the center of which a 4 ft. spot was located.~~

The island upon which @ Tip is located has no particular characteristics. It's shore-line is abrupt. There is growing kelp about 60m. off the east side.

660m. 71° from @ Tip is a ledge which is awash at high water. It is about 10m. in length.

The three islands west of A Rag form one island at low water. The largest of these islands is the highest in St. Nicholas Canal. It's southwestern side is a sheer rock bluff but is not conspicuous as the bluff is dark in color and irregular in structure. East of this largest island are four rocks detached at high water.

The island upon which @ Bo is located has an abrupt rock shore-line. There is a rocky islet west of it which is detached at high water. About 140m. west of this islet is a rocky ledge which bares at 1/2 tide. It is approximately 50m. long and has growing kelp just west of it.

The island upon which @ Flat is located has an abrupt shore-line except at it's southwest extremity where ledges made out into the water. There are also several detached rocks here which do not cover. Northwest of this island 110m. is a rock which bares at 1/2 tide. East of this island is another similar in features, but smaller. It also has ledges making out at it's southwest end. Between and north of these two islands is a rock which bares at 3/4 tide. There is growing kelp around it. 170m. 285° from @ Lop is a rock which bares at 3/4 tide.

Point San Francisco is a sandy point making out about 100m. at low water. Above the high water mark is sand and grass.

About 220m. north of @ Bee is a long flat rock ledge which bares at low water. It is approximately 60m. long and 10m. wide. Rocky ledges make out to the southwest of @ Bee and 110m. 215° from this station are two rocks which bare at 3/4 tide. 210m. 308° from @ Long is a single rock which bares at low water. This rock is small and sharp. Another rock is located 420m. 250° from @ Long. It has growing kelp near it. This ledge is about 80m. long.

The islet upon which @ Long is located is rocky and has no trees. There are rocky shelves at it's southwest end.

The island upon which A Bend is located has no characteristic features. There are two bights on it's east shore. On the south and west sides of the island are ledges making out at the points. 210m. 197° from A Bend is a small rocky islet about 6' above H.W. 95m. north of this is a rock which bares at 1/2 tide. There is growing kelp outside of this rock.

160m. north of A Bend is a group of four rocks which bare at 3/4 tide. They are the tops of a long ledge which comes to the surface there.

The island upon which O's Gow and Pine are located is abrupt but with a reef running out from it's southwest extremity for approximately 10m. 430m. 345° from O Gow is an off-lying rock which bares at 1/2 tide. It is 15m. long in a north and south direction. There is growing kelp to the northwest and southwest.

105m. 72° from O Leb is a rock which bares at 1/2 tide. It is part of a ledge running inshore to another rock which also bares at 1/2 tide.

Landmarks.

There are few landmarks in St. Nicholas Canal. A peak with an elevation of 1688' on the southwest part of No Name Island is prominent when approaching from the Gulf of Esquibel. The top is covered with grass and bushes and is moderately sharp with a long ridge sloping to the southwest.

There is a dark rock bluff about 100m. high on the west side of the island upon which O Hen is located. This can hardly be seen a mile distant.

Pt. San Francisco is made prominent by light colored sand above the H.W. line, when within one mile of the point. The point is low and slopes gradually to the water's edge.

Anchorage.

On the east side of the Canal ESE of Pt. San Francisco and in the locality of O Pid, a good anchorage for small vessels is afforded. Anchorage can be made in from 8 to 18 fms. of water, sand and gravel bottom and plenty of swinging room. However, an anchorage should not be made too far in the bight as a gravel beach makes well out.

Kelly's Cove affords excellent protection in any weather except north to northwest, blowing down the Canal. The cove is hardly large enough for a small boat anchorage and the bottom is rocky. Fishing vessels, however, use the dock extensively, mooring there during SE blows. The dock is fast falling to pieces.

On the east side of the Canal SSE of Pt. San Francisco and in the locality of O Bare a good anchorage for small vessels is afforded in about 10 fms. of water and sand and gravel bottom. There is plenty of swinging room but a gravel beach at the head of the bight makes well out.

Survey Methods.

The topography was done by traversing between triangulation stations previously established and plotted on the sheet. Positions were located by three point fix but twice. When the topography was in progress the sheet has expanded about 7 meters per nautical mile in a north and south direction and about half that in an east and west direction.

Traverses run, their closures and adjustments were as follows;

1. From A Next to A Bight-closure 0m.
2. From A Bight to A Kelly-closure 7m. in error N of A Kelly-Adjusted proportionally between A Bight and A Kelly.

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3. From Δ Kelly to Δ Small - closure 7 m. in error NE of Δ Small
Adjusted proportionally from Δ Small to Δ Kelly.
 4. From Δ Platt to Δ Gert - closure 0m.
 5. From Δ Platt to Δ Bend - closure 2m. S of Δ Bend - no adjustment.
 6. From Δ Bend to Δ Rag - closure 5m. in error NE of Δ Rag. -
Adjusted proportionally from Δ Rag to \odot Long.
 7. From Δ Rag to Δ Moss - closure 6m. in error west of Δ Moss -
Adjusted proportionally from Δ Moss to \odot Bo.
 8. From Δ Moss to Δ Far - closure 10m. in error NW of Δ Far -
Adjusted proportionally from Δ Far to Δ Moss.
 9. From Δ Far to Δ Cone - closure 0m.

The two rocky ledges located 415m. 250° from \odot Long and 212m. 307° from \odot Long were plotted from fixes taken upon them by the hydrographic party.

The elevations of all peaks which are shown on previous topographic sheets were redetermined. The elevation of the valley between peaks with elevations of 1618' and 1386' at the ^{SE} border of this sheet was estimated 100' lower than on the adjoining sheet of Port Real Marina. No cuts could be taken to a point in this valley.

Note; All bearings as given in this descriptive report are true with North as the initial.

P. C. Wilson

Aid, C. & G. S.

Plane-table Position.

Object and Description	Latitude	D.M.	Longitude	D.P.	Height	Remarks.
Mut	55 31	736.0 1119.6	133 35	234.5 818.4		w.w.
Ram	55 30	1373.5 482.1	133 35	227.8 825.1		small tripod
Cat	55 29	1587.5 268.1	133 35	767.7 285.6		w.w.
Zeb	55 29	1431.3 424.3	133 36	138.3 915.0		w.w.
Zec	55 29	1270.5 585.1	133 36	587.0 466.3		w.w.
Pet	55 29	918.5 937.1	133 37	544.5 509.2		w.w.
Dog	55 29	230.3 1625.3	133 37	886.5 167.2		w.w.
Pol	55 28	1081.7 773.9	133 37	975.5 78.2		w.w.
Lep	55 28	361.2 1494.4	133 38	346.5 707.7		w.w.
Pat	55 27	976.0 879.6	133 38	290.2 764.0		w.w.
Fik	55 26	1796.0 59.6	133 38	614.5 440.1		w.w.
Rok	55 26	1393.4 462.2	133 39	347.5 707.1		w.w.
Lak	55 26	602.5 1253.1	133 39	747.0 308.1		w.w.
Time	55 31	1149.0 706.6	133 30	939.5 112.9		w.w.
Leb	55 31	1320.0 535.6	133 31	305.9 746.5		w.w.
Gew	55 31	538.5 1317.1	133 32	87.7 965.2		w.w.
Pine	55 31	520.3 1335.3	133 32	97.7 955.2		Evergreen tree. (lone)
Hid	55 31	135.5 1720.1	133 32	10.5 1042.4		w.w.
Ball	55 30	1745.5 110.1	133 32	325.0 727.9		w.w.
Spit	55 30	1612.5 243.1	133 32	105.6 947.3		w.w.
Long	55 30	1124.5 731.1	133 32	366.8 686.1		w.w.
Pok	55 30	544.2 1311.4	133 32	274.4 778.9		lone dead tree
Bee	55 29	1662.5 193.1	133 32	498.0 555.3		w.w.
Flat	55 29	1289.0 566.6	133 32	598.5 454.8		w.w.
Ho	55 29	1289.0 566.6	133 32	418.0 635.3		w.w.

Lop	55 29	1006.0 849.6	133 32	520.0 533.3	w.w.pole
Til	55 29	800.0 1055.6	133 32	568.0 485.7	w.w. w.w.log
Tim	55 29	478.0 1377.6	133 32	280.0 773.7	w.w.log
Not	55 29	269.2 1595.4	133 32	562.0 491.7	w.w.
Mil	55 29	284.0 1571.6	133 32	763.6 290.1	w.w.
Pid	55 29	525.2 1330.4	133 32	809.6 244.1	w.w.
Dig	55 29	661.0 1194.6	133 33	50.0 1003.7	w.w.
Chik	55 29	381.0 1474.6	133 33	816.0 237.7	w.w.
Hen	55 29	261.5 1594.1	133 33	1036.0 17.7	w.w.
Bo	55 28	1784.5 71.1	133 33	536.0 517.7	w.w.
Lot	55 28	1632.4 223.2	133 33	233.3 820.4	w.w.
Cop	55 28	770.5 1085.1	133 34	3.0 1051.2	w.w.
Bare	55 28	357.0 1498.6	133 34	183.0 871.2	dead tree
Mite	55 28	654.0 1201.6	133 34	230.5 823.7	w.w.
Lek	55 28	719.5 1136.1	133 34	294.5 759.7	w.w.
Tip	55 28	1062.0 793.6	133 35	478.0 575.7	w.w.
Ko	55 28	799.0 1056.6	133 34	713.4 340.8	w.w.
Dek	55 28	568.8 1286.8	133 35	455.0 599.2	w.w.
Pol	55 28	143.5 1712.1	133 35	1032.0 22.2	w.w.
Beb	55 27	1228.5 627.1	133 36	547.0 507.2	w.w.boulder
Men	55 27	764.6 1091.0	133 36	578.0 476.6	dead tree
Pit	55 27	776.6 1079.0	133 36	880.8 173.8	w.w.pole
Pog	55 26	1813.0 42.6	133 37	253.0 801.6	w.w.
Nek	55 26	1570.0 285.6	133 37	112.8 941.8	w.w.
Bite	55 26	1435.6 420.0	133 36	641.5 413.1	w.w.
Mob	55 26	1424.6 431.0	133 36	612.5 442.1	w.w.
Spite	55 26	1184.0 671.6	133 36	328.0 726.6	w.w.pole
Nag	55 26	780.5 1075.1	133 37	19.5 1035.6	dead tree on large boulder

Rocky Bluff

55 29

309.0

133 33

1008.0

Peak

55 27

299.0

133 33

821.0

1618

Scaled from topo.sheet by L. C. Wieder

Checked by

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3914.

Surveyed in 1921.

Instructions dated Feb. 12, 1921.

Chief of Party, T. J. Maher.

Surveyed by L. C. Wilder.

Inked by L. C. Wilder.

1. The records conform to the requirements of the General Instructions the descriptive report being unusually complete.
2. The plan and character of the survey fulfill the requirements of the General Instructions and the plan and extent of the survey satisfy the specific instructions.
3. The junctions with adjacent sheets are satisfactory.
4. The field drafting was completed to the extent prescribed in the General Instructions.
5. No further surveying is required within the limits of the sheet. It should be noted, however, that there remains unsurveyed a deficient area of about 2 square miles in the center of No Name (Lulu) Island.
6. Additional names of prominent geographic features might have been named by the field party.
7. The character of the survey of shoreline details is good. That of the relief and interior details may be considered a reconnaissance sufficient for present needs.

The field drafting is good.

8. Reviewed by E. P. Ellis, December, 1922.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Orig.

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.

Register No. **3914**

State **S, E, Alaska**

General locality **West Coast Prince of Wales Island**

Locality **Saint Nicholas Canal**

Chief of party **T. J. Maher**

Surveyed by **L. C. Wilder**

Date of survey **August 1921**

Scale **1:10000**

Heights in feet above **Mean Sea Level**

Contour interval **100** feet.

Inked by **L. C. Wilder** Lettered by **L. C. Wilder**

Records accompanying sheet (check those forwarded): Photographs,

☒ Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

☒ Plane-table Positions.

Remarks: