

3859

C. & G. SURVEY

L. & A.

JAN 19 1922

Acc. No.

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: S. E. Alaska

11-5613

DESCRIPTIVE REPORT.

Topographic Sheet No. Field 3859

LOCALITY:

~~Skow Island~~

Prince of Wales Island

to

Clover Bay to

~~triangulation station Skowl~~

Patterson Island

~~2 miles south of Skowl Point~~

original

1921

CHIEF OF PARTY:

J. H. Hawley

00

15

00

00

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEET NO. 3859<sup>4</sup>

The topography on this sheet was executed by orders dated Feb. 11, 1921.

**LIMITS:** The southern limit of the sheet is about midway between Cholmondeley Sound and Clover Bay, East Coast of Prince of Wales Island, joining topographic sheet No. 1 at this point. From here the topography is continuous, including all bays and islands to triangulation station Skowl, two miles south of Skowl Pt. Patterson and High Islands are included on this sheet. Skin Island is not shown on this sheet. Form lines were drawn in, covering an area of from one to two and a half miles inland, from Clover Bay to Island Pt. From Island Pt. to Skowl the form lines are only partly done.

**CONTROL:** The control on this sheet is furnished by triangulation stations, Skin, Clover, Island-Pt.2, Skowl, High and Grindall. With very few exceptions the entire shoreline was located by traverse between these stations. Occasionally a resection was used. A few three-point fixes were used on the south shore of Patterson Island. The topography on Patterson Island is probably less accurate than the other work altho a good closing error was obtained on the traverse around the island.

**METHOD:** A 1:20,000 scale was used. All bearings are shown as true; distances in nautical miles and meters. The work on this sheet was commenced at topographic station Pan. This station, having been located on sheet No. 1 by traverse from triangulation station Chasina N., was plotted by D.M. and D.P. From here a traverse was carried to triangulation station Clover. From triangulation station Clover the shoreline was traversed to triangulation station Island Pt., thence to triangulation station Skowl. The shoreline of Patterson and High Islands was located by a traverse from triangulation station High Id. From this station a traverse was carried around the south side of the islands. The work was done in October and in a thick fog so that at times readings of 100 meters or so was all that could be seen. Several times during this traverse the fog broke away momentarily and a fix was obtained. Sometimes the positions differed by 15 - 20 meters but the fix was used. It was impossible to close the traverse on the north side of High Island on account of the steep cliff, accordingly

the traverse was tied in at topographic station Sud with an error of 5 meters.

The following table shows the closing errors and lengths of the various traverses.

Traverse	Closing Error	Length of traverse
A Chasina - O Pan - A Clover	12 meters (not adjusted)	5 Naut. miles
A Clover - A Island Pt.	20 do	4.75 do
A Island Pt. - A Skowl	20 "	4 "

Summits were located by three or more intersections and generally four vertical angles were taken with different position of telescope and stride level. Form lines were then drawn in. Elevations are to tops of trees (estimated height 70 feet) unless mountain is shown as bare and are referred to mean sea level.

Whitewash signals and a few natural objects were located, during the course of the topography, for the use of the hydrographic party.

GENERAL DESCRIPTION: The area covered by this sheet is rugged and mountainous. As a whole the country is thickly wooded and also a thick underbrush. There are, however, numerous bare, rocky hills and mountains and several cliffs of bare rock. The country is interspersed with lakes and numerous streams many of which go dry at times. The shoreline is very irregular and rocky and is covered in many places with drift wood.

DETAILED DESCRIPTION: Anderson Pt. at the south entrance to Clover Bay is a low, thickly wooded point. It is not prominent from any direction except on entering Clover Bay. There are several rocks, bare at 3/4 tide about 300 meters ~~East~~ (true) <sup>90°</sup> of the point. About 120 meters North (0°) (true) of the most Easterly end of Anderson Pt. and in the South side of the entrance to Clover Bay are two rocks bare about 3 feet at Mean High Water. At low tide they appear as one rock and on a spring tide they would probably be covered or awash. On entering Clover Bay these rocks are very deceiving as they appear to be in mid-channel.

CLOVER BAY is about 1-1/2 miles <sup>85°</sup> West (true) from Skin Island. It is about 1-1/2 miles long and an average width of 1/4 mile and runs in at E. and W. (true) direction. The Bay is clear as far as the islands about 1

mile from the entrance. Beyond these islands there are several rocks bare at various stages of the tide. King Island~~x~~ is the largest island in the center of the group in the head of Clover Bay. The passage between King Island and the Island south of it appears to be foul and local crafts going to the head of the bay pass to northeastward of King Island. The bight about 350 meters <sup>250</sup> ~~N.W.~~ (true) of King Island affords the best anchorage for small boats. Fishing boats, cannery tenders and pile drivers use this bight. During S.E.'ly storms a light swell works in and the wind is violent at times. The country on the head of Clover Bay is particularly rugged, consisting of numerous bare, rocky knolls, & mountains from 700 to 1800 feet high. There are two large streams at the head of the bay and many small ones along the shore. The two large streams meander thru long narrow valleys and apparently have their origin in large lake 2 or 3 miles inland.

CLOVER POINT is at the north entrance to Clover Bay. It is about 100 ft. or more high and thickly wooded and not very prominent. Moderate tide rips occur off this point at times.

From Clover Point to Island Point the shoreline is very irregular with many offlying islands. There are not any large bays nor any large enough to afford protection to even small boats.

ISLAND POINT is 4-1/2 miles north of Clover Bay. It is about 100 ft. or more high, thickly wooded and is about 1/2 mile long protruding in a N.E. (true) direction. It is noticeable by the fact that there is a small island on the north side and several small rocky islets on the south side. The shore is grayish white rock about 25 feet high. Moderate to heavy tide rips are encountered in the vicinity of Island Pt.

From Island Pt. to triangulation station Skowl the shore curves to the west and is very irregular, and the country back from the shore being extremely rugged. There are many cliffs and bare hills.

The bay on the north side of Island Pt. 1/2 mile west of the East tangent is used as an anchorage for fishing boats but is open to the north.

TROLLERS' COVE is a bight located in back of a chain of islands 1-1/4 miles <sup>260° (true) from</sup> west of Island Pt. This affords the best small boat anchorage in this vicinity and is used exclusively by those fishing on the Twenty-Fathom Bank.

The bight is about 200 meters in diameter and affords protection from all winds and seas. The entrance at the S.E. end of the islands is used at high water only as it dries at L.W. The entrance most used is between the 2nd and third islands from the N.E. end of the chain of islands. The entrance is rocky and local information should be obtained before entering. A reef, bare at 1/2 tide, protruding in a S.E. (true) direction off the N.W. end of the 3rd island of the chain should be avoided and then favor the side of the channel nearest the islands.

✓ PATTERSON AND HIGH ISLANDS are 1-1/2 miles north (true) from Island Pt. and about 3/4 mile offshore. Patterson Island, the most westerly one, is low, having 3 summits 250 feet or more. The island is about 1-1/4 miles long and 1/3 mile wide in an East and West (true) direction. The island is wooded but not so thickly as the surrounding country. The shore is very irregular and rocky. There are several rocks which cover at H.W. about 400 meters south of the large bight on the W. side of the island. In this bight there is a house in good condition. The island is a fox ranch owned by Howard Fur Co. of Ketchikan. There are no good small boat anchorages on the island but the bight on the south side of the island is used as an anchorage for N'ly weather but SE'ly piles right in the bay. On the North side of the island a little bight 350 meters (true) of the end of the island is used as a small boat anchorage in SE'ly weather. The entrance is rocky, bottom poor, and swinging room scant for even small fishing craft. The passage between Patterson and High Islands is about 70 meters wide and appears to be clear for small boats.

HIGH ISLAND on the SE end of Patterson Island is a higher, round island about 700 meters in diameter and 425 ft. high, thickly wooded. From the southward there appears to be twin summits on High Island but they merge into one to the eastward and the two become visible again from N.W. The summit is nearly in the middle of the island and the slope is practically uniform to all shores. The North, East and South shores of the island are quite abrupt, consisting of gray rock from 20 to 40 feet high. Outlying 170 meters in a SE (true) direction from the SE end of High Island there is a rocky islet, with a few trees. This islet is about 50 feet high, 130 meters long and 30 meters wide. Triangulation station High Island is located on the NE end of the islet.

GENERAL INFORMATION: Traffic along this coast is mostly fishing craft. The Twenty-Fathom Bank is about 2 miles east of Island Pt. and there is always a large number of boats fishing there. The majority use Trollers Cove as an anchorage.

The only fish trap along this coast is located 1-1/2 miles south of Island Point. It proved to be one of the most valuable traps in SE Alaska in 1921.

DANGERS TO NAVIGATION: The above water dangers noticed by the topographer are as follows:

The rock previously described in the South Entrance to Clover Bay.

In Clover Bay there is a rock awash at low water 60 meters off the north shore of King Island and 190 meters west of the most Easterly tangent of King Island. There are also 2 rocks bare at 3/4 tide about 80 meters <sup>300'</sup> (true) from the NE shore of King Island. The bay should be considered foul beyond King Island unless one has local knowledge.

In the middle of the entrance to the Bay 1-3/4 mile north of Clover Pt. there is a rock, bare at 3/4 tide. This is marked by abundant growth of kelp.

The dangers in entering Trollers Cove have been described.

The bay north of Trollers Cove has several rocks awash at various stages of the tide.

The small bay 1-1/4 mile south of triangulation station Skowl is foul at the entrance - the reef covering at high water.

The bay 1/2 mile south of triangulation station Skowl is foul both at the entrance and the inside the bay. A rock baring at 1/2 tide is just inside, west of the island at the entrance.

The dangers on the SE side of Patterson Island have been described.

Kelp grows abundantly on all dangers, under water during the summer months, disappearing in early October.

✓ LOCAL NAMES: Trollers Cove has been previously described. This place has been used extensively by fishermen for many years, and has never been named. The name Trollers Cove was assigned by the topographer.

OK.  
JWM.

REMARKS: The projection on this sheet was made by the 1920 Field Party, under T. J. Maher. In checking the projection in 1921 it was found to be in error 15 to 20 meters in the lower right hand corner. The parallel of 55° 17' seems to be out 15 to 20 meters and allowance for this ~~part of the~~ was made in plotting stations on this part of the sheet.

It appears from the latest published chart of this area that the ~~latest~~ Washington office has some data relative to lakes in this vicinity. Accordingly a few of the large lakes were scaled off the chart but were made to conform with the form lines. It is evident that the location of the lakes are approximately correct as they fitted in well with the form lines.

Approved.



J. H. HAWLEY,  
H. & G. E., Ch. of Party.

Respectfully submitted,



E. F. LEWIS,  
Jr. H. & G. Engr.

EFL/mb



Clover Bay, looking east from one of the low hills  
at the head of the bay. Skin Island on the right.



Taken from one of the low hills at the head of  
Clover Bay. Skin Island on left. Chasina pt. on right.



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

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3859.

Surveyed in 1921.

Instructions dated Feb. 11, 1921.

Chief of Party, J. H. Hawley.

Surveyed by E. F. Lewis.

Inked by E. F. Lewis.

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.
3. The plan and extent of the work satisfy the specific instructions.
4. The junction with the adjacent sheet is satisfactory.
5. The field drafting was completed to the extent prescribed in the General Instructions.
6. There are several blank spaces in the form lines. Otherwise the survey of the area is complete.
7. The character of the survey of the 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, November, 1922.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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. 3859

State . . . S.E. Alaska . . . . .

General locality ~~Alaska~~ East Coast of Prince of Wales Isl.

Locality . Clover Bay to Patterson Island  
~~Ship Island to 3 miles south of Skowl Point.~~

Chief of party . J.H. Hawley . . . . .

Surveyed by . E.F. Lewis . . . . .

Date of survey September and October, 1921. . . . .

Scale . 1:20,000 . . . . .

Heights in feet above mean sea level. . . . .

Contour interval . 100 . feet.

Inked by . E.F. Lewis . Lettered by . E.F. Lewis . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Trangulation of 1912 and 1921.

Remarks:

3859

a

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: S.E. Alaska

11-5013

DESCRIPTIVE REPORT.

field letter A

Topographic Sheet No. 3859

LOCALITY:

~~Kasaan Bay Entrance~~

Clarence Strait

Patterson I., Kasaan Bay

1912

CHIEF OF PARTY:

F.B. T. Siems, H. & G. E.

## DESCRIPTIVE REPORT

### TO ACCOMPANY

#### TOPOGRAPHIC SHEET A (FIELD LETTER)

**PURPOSE:** This sheet was necessary to locate signals for hydrographic work required under instructions of April 19th, 1924, by planetable triangulation, along shoreline which was surveyed about two years ago. Traces of previous white washed rocks were recovered on Patterson Island and along the Kasaan Bay shore line south of Patterson Island. The positions of the latter as determined by this survey agree in the main with those previously determined, those on Patterson Island were not in agreement. The shore line of Patterson Island was therefore carefully rerun, so that the correct relation between the inshore hydrographic and topographic work could be established. The adjoining topographic sheets of Kasaan Bay, executed this season could not be used for this purpose, as they were somewhat distorted at the time and furthermore the sheets did not extend far enough to cover triangulation station, Island Point No. 2, which was necessary for additional control. Signals on Grindall Island and Grindall Point are new locations.

**METHODS:** Triangulation stations were occupied by plane table and directions to signals plotted. Other signals, which were then accurately located were occupied and further cuts to signals were obtained. No appreciable distortion of the sheet was occasioned during the short period of good weather while work was in progress. The shoreline of Patterson Island and other signals were located, using signals located as above, for control. The shore line is also indicated at Signal Imp and triangulation station CHOP. A rock near signal Reg on the north shore of Grindall Island also shown.

**PATTERSON ISLAND:** A rock awash four feet above mean lower low water and marked by kelp lies  $1/4$  mile E.  $1/2$  N. (Mag.) from the southern most point of Patterson Island, and rocks bare at various stages of the tide between this rock and the beach directly inshore. Two rocks bare at lowest tides, each lie about 60 yards off from the northern shore of Patterson Island. A establishment for fox raising is maintained in the cove on the south side of Patterson Island. The cove affords no shelter during south east storms.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## TOPOGRAPHIC TITLE SHEET (Field letter A)

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. (A) 3859<sup>a</sup>

State . . . . . SE. ALASKA  
 General locality . . . . . Clarence Strait  
 Locality . . . . . ~~Kasaan Bay Entrance~~ Kasaan Bay  
 Chief of party . . . . . F. B. T. Siems  
 Surveyed by . . . . . F. B. T. Siems  
 Date of survey . . . . . July 15 - 17, 1924 and August 6th, 1924.  
 Scale . . . . . 1/20,000  
 Heights in feet above None  
 DATUM . . . . . Approximate S. E. Alaska of Clarence Straits, 1912  
 Contour interval . . . . . feet  
 Inked by F.B.T. Siems . . . . . Lettered by . . . . . F. B. T. Siems  
 Records accompanying sheet (check those forwarded): Photographs, -  
 Descriptive report, Horizontal angle books, Field computations,  
 Data from other sources affecting sheet Topographic sheet 3859 & 4002.  
 Triangulation 1912, 1915, 1921, 1922 and 1924.

Remarks: This sheet was used primarily for determining relocations of signals by plane table triangulation along previously surveyed shore line of sheets 3859 and 4002.