

C. & G. SNEY
L & A.
JAN 24 1917
Acc. No.

3916

Day Chrt. Nos. 8152-1, 8252-1 & 8201-2

3916

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

State: *Alaska*

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *3916*

LOCALITY:
*Southern Part
of Sumner
Strait S. E.
Alaska*

1916

CHIEF OF PARTY:
S. C. Collat

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic 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. 3916

State **S E Alaska**

General locality . **Summer Straits**

Locality **Between Pt St. Albans and Pt. Amelius, Fuiu. Isl.**

Chief of party . . . **L.O. Colbert**

Surveyed by **L.O. Colbert**

Date of survey . . . **May 25 to June 18, 1916**

Scale **1/20,000**

Soundings in **Fath**

Plane of reference . **Mean Lower Low Water**

Protracted by . . . **H.P.W.** Soundings in pencil by **H.P.W.** . . .

Inked by . . **H.P.W.** Verified by
Letted in pencil by A.C.

Records accompanying sheet (check those forwarded):

Des. report, _____ Tide books, _____ Marigrams, _____ Boat sheets,
_____ 1 Sounding books, _____ 1 Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks: *The descriptive report of this sheet will be forwarded a few days later*

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

E. Lester Jones
Superintendent.

DESCRIPTIVE REPORT

to accompany

WIRE DRAG SHEET No. 3916'⁰'

SOUTHERN PART OF SUMNER STRAIT, SOUTHEAST ALASKA.

by

WIRE DRAG PARTY No. 4.

LO. COLBERT, Chief of Party.

1916

Scale of sheet. 1 - 20,000

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET NO. 3916 &"

SOUTHERN PART OF SUMNER STRAIT, SOUTHEAST ALASKA.

Limits of sheet:

This sheet covers an area from a mile and a half to two miles wide along the east coast of King Island, on the west side of the southern entrance to Sumner Straits, Southeast Alaska, and extending from Point St. Alban^s ^{to a point} about two miles south of Point Amelius.

On the south the dragged area is bounded approximately by a two mile line running northwest and southeast (true), the northwest end of which is about one and one-fourth nautical miles south (true) of Point St Alban^s. On the north it is bounded by a line approximately one and one-half miles long running west, northwest and east, southeast (true), the ~~xxx~~ west end of which is about two miles due south of Point Amelius.

The foregoing is only roughly described, as the dragged area is very irregular, and there is one dragged strip not mentioned which lies out near the center of the Straits, and is about one mile wide by three and a half nautical miles long running in a northeasterly and southwesterly (true) direction.

Depth Dragged:

Only in three cases were depths of less than 45 feet ~~or~~ ever carried. Near the northern end of the sheet an effective depth of 39 feet was dragged. In two other instances the west end of the drag was set with an effective depth of 34 feet to ~~XXXXX~~ avoid shoals. At the southern end of the sheet a small area was dragged over ~~by~~ 39 feet, this afterwards was covered by 40 feet effective depth.

Distance off Shore:

Since the area dragged lies outside a line of rocky reefs, chartered shoals and groups of small islands surrounded by kelp, it was not practical to attempt running in very close ~~in~~shore.

Currents and their effect on the drag:

Off Point St. Albans very heavy tide rips were experienced. Ordinarily the tidal current seemed to follow the general coast line and was estimated at 1.5 knots per hour. The manner in which this area is broken into by groups of islands and shoals, emphasizes the impossibility of knowing the exact direction of the current for this section, without special attention devoted to their study.

Shoals located:

(1) A rock with least depth of 43 feet at mean lower low water was found three-fourths of a nautical mile southwest (true) of Black Bouy No. 1., and was located as follows;

Pt. St. Albans Lt bears 315 30' (true), distant 1.3 nautical miles.
Later an effective depth of 40 feet was dragged over this area.

Geographical position:

Latitude 56 04' 38" ✓
Longitude 133 55' 55"

(2) There is a shoal of small extent about one-fourth nautical miles due east of Black Bouy No.1., which marks the ~~limits~~ eastern limits of the reef of Point St. Albans. The least depth found was 51 feet at mean lower low water. It is unmarked by kelp, and is located as follows;

Pt. St. Albans Lt. bears 235 00 (true), distant 1.7 nautical miles,
An effective depth of 45 feet was dragged over this shoal.

Geographical position; as taken from hydrographic smooth sheet.

Latitude 56 05' 07" North ✓
Longitude 133 54' 46" West

(5) A rock covered by 32 feet at mean lower low water was found one-half mile north, northwest (true) of the rocks shown by a sunken rock symbol on chart no. 8200. This was unmarked by kelp, and was located on the following bearings;

St. Albans Point Light 227 30' (true), distant 2.2 nautical miles.

Geographical position, as taken from hydrographic smooth sheet;

Latitude 56 07' 02" North ✓
Longitude 133 54' 35" West.

Shoals located, continued:

(4) The rock formerly reported by Captain Leadbetter, of the Lighthouse Tender " Fern " was relocated. This is shown by a sunken rock Symbol on chart No. 8200. The rock is bare one and one-half feet at mean lower low water, and should be shown by a symbol of rock awash. There is during the summer months, a conspicuous kelp patch about 50 meters in diameter marking this spot. It is located on the following bearings;

Pt. St. Albans Lt. bears 241 00(true), distant 2.1 nautical miles.

Geographical position, as per projection of hydrographic smooth sheet.

Latitude 56 06' 34" North
Longitude 133 54' 15" West.

(5) The reef extending eastward from Point St. Albans is in error on the latest edition of Chart 8200. The symbol showing two rocks awash is too far off the light, consequently the Black Bouy marking the limit eastern limits of this reef plots inside these rocks, as shown on the chart. The following bearing was taken at the Bouy:

St. Albans Light bears 288 30 (true), distant 1.4 nautical miles.

Geographical position , as per projection of hydrographic smooth sheet.

Latitude 56 05' 06" North.
Longitude 133 55' 10" West.

(6) A sunken rock 0.9 nautical miles south, southwest (true) from \triangle St Albans, was located by the topographic party. A description of this rock will be found in report of plane table sheet.

* Note. A discrepancy between the description of shoals in this report and in the report sent in of these shoals during the summer will be noticed. The bearings and geographic locations previously compiled were taken after plotting the shoals on the chart and the bearings taken from those positions. The differences in geographic positions are noticeably different , due to the lack of adjustment of former triangulation schemes in this vicinity.

Adjoining Sheets:

The southern end of this sheet is partly overlapped by the work of sheet " 00 ", although the junction is not quite complete; there being a small split remaining.

The northern end is continued into sheet " 1 " , as noted on the sheet.

Control of the Survey:

The control of this survey consisted of triangulation and topographic signals located by the party in conjunction with the drag work. A scheme of secondary triangulation was observed connecting with the work of this party last year, and with that of Assistant, E. F. Dickins in 1899.

Tide Reducers:

The tide reducers were taken from the marigrams of the tide gauge at Pole Anchorage, the base of which was computed by a simultaneous comparison with the tide at the gauge at Wrangell., established by Wire Drag Party No. 3. Where tides were missing from the Pole Anchorage gauge, the Wrangell tides were substituted and corrected for Pole Anchorage as computed.

Pole Anchorage Low Water is 16 minutes earlier and .4 feet higher than Wrangell.

Pole Anchorage High Water is 14 minutes earlier and 5.3 feet lower than Wrangell.

Weather conditions making certain positions of drag doubtful:

From 20 "H" day to 28 "H" day, it will be noticed that the line of positions of the End Launch have been dotted. This was done to show that at 23 "H" and 28 "H" a distance to the end launch was had, while at all the intermediate points the weather shut out the line of sight between the two launches, and so the mean of these two ~~inter~~ distances was used for the intermediate locations of the end launch, which are only approximate. It may also be said that the position 27 "H" is very weak, as the signals and position were almost on a circle. Heavy rain prevented the end ~~at~~ launch from being seen or angles observed, from the launch

Coast Pilot Notes; Harbors:

Louise Cove:

The harbor used by the King and Winge while this work was in progress, is the small bay about one and one-half miles west of Point Amelius, which was named " Louise Cove " by the drag party.

This cove furnished very good anchorage for a small steamer in seven fathoms of water and soft bottom, and at this depth the harbor is practically landlocked. The chart shows only ~~one~~ sounding of four fathoms, but there is at least seven fathoms in the center of the Cove.

On two occasions the King and Winge was anchored in a small bight two miles north of Point St Albans light. This bight has nine fathoms soft bottom, but is useless as an anchorage as it does not furnish good holding ground, and shoals very rapidly from the above sounding.

Approved



Assistant, C. & G. Survey
Compiler.



Assistant, C. & G. Survey
Chief of Party

RIL

STATISTICS "0" SHEET.

<u>Day</u>	<u>No. Angles</u>	<u>No. Stat. Miles.</u>	<u>No. retained soundings.</u>
A	187	6.0	1
B	273	7.0	1
C	8	0	
D	122	4.0	
E	5	0	
F	82	2.5	
G	160	2.5	7
H	138	1.8	
J	151	7.4	
F	<u>107</u>	<u>4.3</u>	
	1223	35.5	<u>9</u>

Total Area 24 square Stat. miles

ADDRESS
U. S. COAST AND GEODETIC SURVEY
WASHINGTON, D. C.

REFER TO NO. 5-VEC

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

LIBRARY

Place with descriptive report
of hydrographic sheet No. 3916

7
Drawing Section.

September 24, 1917.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are revised in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 3916

Summer Strait, S.E. Alaska
L.O. Colbert in 1916.

Plane of reference is
Mean lower low water, reading
Ft.
5.0 in tide staff at Pole Anchorage
8.3 " " " " Craig*

*Allowance made for difference in
tide at place of soundings.

L. P. Shidy
Acting Chief, Section of
Tides and Currents.

Verification Report of Wire Drag 3916

There were no errors found in the plotting of this sheet. The work was well done.

The area was well covered, sufficient overlapping ^{of drag strips} obtained in all cases.

Due to revision of tide readings subsequent to plotting sheet effective depths as shown will differ in some cases by 1 ft. from those of record. Practically all these depths were over 45 ft. so it was not considered important enough to make extensive corrections on the sheet for this 1 ft. difference.

Respectfully submitted

Alois Baer.

Draftsman.

E.P.S.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 9-DEM

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

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 3916

Surveyed in 1916.

Chief of Party: L. O. Colbert

Surveyed by L. O. Colbert. Instructions dated Feb. 26, 1916.

Protracted and inked by : N. P. White.

Verified and Area and Depth Sheet by: Alois Baer.

1. The depth and extent of dragging satisfy the specific instructions.
2. The least water was found on all shoals discovered. However, attention is called to the 52 foot sounding due east of the whistling buoy. This is shown on the smooth sheet and the Area and Depth sheet as covered by a 45 foot drag.

The drag parted here at 14D when set at a depth of 45 feet, but on F day dragging at the same depth the drag cleared the same spot. There seems, however, to be some doubt as to the proper location of this sounding (See note on page 5 of sounding record). But if the position of the sounding is correct and the parting of the drag at 14 D was due to grounding, indicating less than 45 feet water, then there is a possibility that the strip on F day beginning at 8 F, dragging 45 feet did not actually pass over this shoal, but that the bight of the drag at the beginning of the strip was just south of the shoal. Or, again, if the drag did pass over the shoal, then owing to the 6 foot swell noted in the record (probably exaggerated, as 12 foot swell is noted later on) the drag might have been carried over the shoal spot on the crest of a wave and so would clear even if 40 feet of water existed. In either case, the area around this spot should be dragged again whenever work is resumed in Summer Strait.

3916.

3. The overlaps are sufficient.
4. There are no splits on this sheet, but additional work will be required, when opportunity affords, as mentioned in paragraph 2.
5. Reviewed by A. L. Shalowitz, August, 1922.