4535

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

*State:* S.E. Alaska

11—5613

# DESCRIPTIVE REPORT.

*Hydrographic Sheet No.* 4535

LOCALITY:

Prince of Wales I.-W. Coast

Long I.-E. and S. Coast

Cordova Bay

*1925*

CHIEF OF PARTY:

H.B. Campbell

4535

Form 537
11—6812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

# HYDROGRAPHIC TITLE SHEET

4535

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. 4535

State . . . SE. Alaska . . . . . .

General locality . ~~West Coast, Prince of Wales Island~~ Prince of Wales I. W. Coast . . .

Locality ~~East coast of Long Island and southern part of Kaigani Strait~~ Long I. E. and S. Coast, Cordova Bay

Chief of party . . . . . H.B. Campbell. . . . . .

Surveyed by . O.S. Reading and M.O. Witherbee. . . . . .

Date of survey . . September 4 October, 1925 . . . . . .

Scale . . . . . 1:20000 . . . . . .

Soundings in . fathoms. . . . . .

Plane of reference . Mean lower low water . . . . . .

Protracted by C.I. Aslakson Soundings in pencil by C.I.A. .

Inked by . . . . . Verified by . . . . . .

Records accompanying sheet (check those forwarded):

Des. report, ..... Tide books, ..... Marigrams, 2 Boat sheets,

6 Sounding books, ..... Wire-drag books, ..... Photographs.

Data from other sources affecting sheet . . . . . .

Remarks:

# D E S C R I P T I V E  R E P O R T

to accompany

H Y D R O G R A P H I C  S H E E T  N O. .....

F I E L D  N O. 3 Complete

W E S T  C O A S T  P R I N C E  O F  W A L E S  I S L A N D,

E A S T  A N D  S O U T H  S H O R E
O F  L O N G  I S L A N D.

September and October, 1925.
Scale ..... 1 : 20,000.

H. B. CAMPBELL, CHIEF OF PARTY.

Instructions dated, Feb. 27th, 1925.

LIMITS

This Sheet includes the inshore hydrography of Long Island from a junction with 1925 sheets field No. 2 and 4 and Hydrographic Sheet 3042A on the south, Sheet 3043 on the east, Sheet 3416 and the 200 fathom curve on the north. The boat sheet was laid out to include Kaigani Strait but it became necessary to close the season's work before this was accomplished.

GENERAL DESCRIPTION

For a general description of Landmarks and offlying rocks see the descriptive report of the 1925 topographic sheet of this area (Field Letter "C").

ANCHORAGES

On the south side of Coning Inlet in Lat. 54° 49', Long. 132° 40', there is a small bay called Ning Bay by the survey party (no local name). It affords a secure anchorage for small boats with three or four fathoms sticky bottom about 200 yards in extent, south of the small islet in the center of the bay. The two rocks awash 60 yards southeast from the small islet in the center of the Bay bare about 7 feet at M.L.L.W.

The eastern arm of Elbow Bay affords excellent protection for small vessels about 250 yards in extent in 13 fathoms Mud. Boats can anchor farther up the arm in 5 fathoms. Northwesterly winds blow through the anchorage but no willywaws were noticed. Enter the Bay mid channel, avoiding the ledge off the east end of the larger island at the entrance and the detached rock southwest of it. Pass to the west of the sunken rock with four feet over it in the center of the Bay for the most water.

DANGERS

In Latitude 54° 44' 36", Longitude 132° 37' 45" off the south point of Long Island there is a reef marked by kelp on which a least depth of 8 feet was found.

There is a covering rock 500 meters 155° (True) from △ Marble which bares 4 feet at M.L.L.W. Lat. 54°52.2', Long. 132° 37'.

There is a reef unmarked by kelp with a least depth of four feet over it at the center of the southern part of Elbow Bay, Lat. 54° 53.9', Long. 132° 39.8'.

There is a shoal with 16 feet over it off ⊙ Hand in Shoe Bay not marked by kelp in Lat. 54° 55', Long. 132° 44'2.

There are numerous inshore rocks, some of which are listed herewith for the convenience of the chartographer:

A rock awash at low water 210 meters south true from ⊙ So.

A rock baring 8 feet, 200 meters 160°(true) from △ Ning.

Two rocks baring about 7 feet extending 60 meters 160° (true) from ⊙ Kin in Ning Bay.

A rock awash at high water, 110 meters, 30° (true) from ⊙ Tral near the head of Coning Inlet.

A rock bare 1 foot at M.L.L.W. 270 meters, 160° (true) from ⊙ Rue, Lat. 54° 52', Long. 132° 39'.

Three rocks awash at low water 220 meters, 75°(true) from ⊙ Pen, Lat. 54° 51', Longitude 132° 37'2.

A reef extending about 100 meters southeast from △ Breeze, Lat. 54° 54'4, Long. 132° 39'3.

A rock baring 5 feet 300 meters, 260°(true) from △ Breeze.
Other rocks and offlying islets are mentioned in the descriptive report of the topographic sheet.

SURVEY METHODS

The usual hydrographic methods were followed. The launches were backed to a full stop before letting go the lead for all wire soundings. During the first two days, a marble outcrop on Datzkoo Island (later named Pain) was mistaken for △ Koo. The shadows falling on the north side of the islands resembled those on the north side of the point observed while working on the 1:10,000 Sheet B. When the mistake was discovered it was noted that △ Koo was entirely shaded or obscured from the direction ⊙ Pain was used. The signals names were therefore changed and the work retained.

As usual in Southeast Alaska, the formation of the bottom of this area is such that in depths of over two fathoms when the bottom was not visible, the least water may not have been found in all cases even after careful feeling with the hand lead. There was not time available for wire dragging, nor were the indications far enough offshore to warrant it for the present commercial development of the locality, and vessels should therefore avoid passing over the shoals although the least depth found is greater than their draft.

O. S. Reading

O. S. READING, H. & G. E.

STATISTICS FIELD --- HYDROGRAPHIC SHEET No. 3.

AREA 30.7 Sq. Mi.

| Date | Day | Vol. | Miles | Soundings | Positions | Boat |
|---|---|---|---|---|---|---|
| Oct. 10 | a | 1 | 11.5 | 161 | 86 | Motor Sailer No. 8610 |
| " 12 | b | 1 | 11.0 | 225 | 134 | " " " " |
| " 13 | c | 1 | 10.2 | 199 | 111 | " " " " |
| " 14 | d | 2 | 7.1 | 192 | 98 | " " " " |
| " 15 | e | 2 | 10.0 | 192 | 115 | " " " " |
| | | | 49.8 | 969 | 544 | |
| Sept. 24 | a | 1 | 20.2 | 203 | 116 | Wire Drag Tender No. 2 |
| " 25 | b | 1 | 11.5 | 151 | 101 | " " " " " |
| " 26 | c | 1 | 5.2 | 61 | 39 | " " " " " |
| Oct. 3 | d | 1 | 4.1 | 56 | 33 | " " " " " |
| " 5 | e | 1 & 2 | 11.3 | 137 | 94 | " " " " " |
| " 7 | f | 2 | 10.1 | 142 | 90 | " " " " " |
| " 8 | g | 2 | 7.6 | 93 | 58 | " " " " " |
| " 9 | h | 2 | 17.0 | 190 | 120 | " " " " " |
| " 10 | j | 2 & 3 | 17.0 | 182 | 110 | " " " " " |
| " 12 | k | 3 | 14.5 | 185 | 120 | " " " " " |
| " 13 | l | 3 | 9.0 | 189 | 120 | " " " " " |
| " 14 | m | 3 | 14.5 | 144 | 106 | " " " " " |
| " 15 | n | 3 & 4 | 12.8 | 154 | 107 | " " " " " |
| " 24 | p | 4 | 1.0 | 31 | 20 | " " " " " |
| | | | 155.8 | 1918 | 1234 | |
| Totals for both boats | | | 205.6 | 2887 | 1778 | |

(11)

June 15, 1926.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4535

Locality: West Coast PRINCE OF WALES ISIAND.

Chief of Party: H. B. Campbell in 1925.

Plane of reference is MLLW
0.1 ft. on tide staff at Elbow Bay
2.9 ft. ------do-------- Cape Muzon (McLeod Bay)

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

G Rude

Chief, Division of Tides and Currents.

Section of Field Records.

Report on Sheet No. 4535 Hyd.
Surveyed in. — 1925
Chief of Party — H. B. Campbell.
Surveyed by — O. S. Reading & M. O. Withrow
Protracted by — C. L. Ackerson
Soundings plotted by — C. L. A.
Verified and inked by — H. E. MacEwen

1. The records conform to the requirements of the general instructions.
2. The plan and character of the development fulfill the requirement of the general instructions.
3. No system of cross sounding lines was used.
4. The usual depth curves (except in depths under six fathoms) can be completely drawn.
5. The field plotting was completed to the extent prescribed in the general instructions.
6. The office draftsman had to revise many of the fractional reductions made by the field draftsman.
7. No further surveying is required to fully develop important areas within the limits of this sheet.
8. Remarks: The field draftsman absolutely did not follow regulations in making up fractions on sheet soundings.
9. Rating. a. Character & scope of surveying — Excellent
b. Field drafting — Excellent

H. E. MacEwen

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON December 7, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4535

Long Island, Cordova Bay, Alaska

Surveyed in 1925

Instructions dated Feb. 27, 1925 (NATOMA)

Chief of Party, H. B. Campbell.

Surveyed by O. S. Reading and M. O. Witherbee.

Protracted and soundings plotted by C. I. Aslakson.

Verified and inked by H. E. MacEwen.

1. The records conform to the requirements of the General Instructions except for the omission of bottom characteristics on one and one-half days.

2. The plan and character of development fulfill the requirements of the General Instructions.

3. The plan and extent of development satisfy the specific instructions except for the omission (as noted in the descriptive report) of wire dragging over indications of shoals.

4. The sounding line crossings are adequate considering the uneven character of the bottom.

5. The information is sufficient for drawing the usual depth curves.

6. The usual field plotting was done by the field party, and was excellent except for the failure to conform to the General Instructions in plotting fractions of fathoms.

7. The junctions with the adjoining sheets (Nos. 2787, 3042a, 3043, 3416, 4534 and 4536) are satisfactory.

8. No additional leadline surveying is necessary, but all indications should be wire dragged. If possible all inshore areas should be dragged as there were several dangers discovered which had little or no indications of shoaling on the sounding lines, and the whole area has possibility of dangers.

9. The character and scope of the surveying are excellent and the field drafting is good.

10. Reviewed by E. P. Ellis, November, 1926.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)