

3985

Diaght. No. 8202-1



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

State: *Alaska*

11-5813

DESCRIPTIVE REPORT.

Sheet No. **3985**

LOCALITY:

*Southern Part
 Lynn Canal*

1917

CHIEF OF PARTY:

L. O. Colbert

3985

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. **3985** (Field No. 1)

State **Southeast Alaska**
General locality . . . **Lynn Canal**
Locality **Southern Part of Lynn Canal and No. End Favorite Channel**
Chief of party **L. O. Colbert**
Surveyed by **Wire Drag Party No. 4**
Date of survey **1927**
Scale **1-20,000**
Soundings in **feet**
Plane of reference **Mean lower low water**
Protracted by **WHC** Clark . . Soundings in pencil by **WHC**
Inked by **A. Baer** Verified by **A. Baer**
Records accompanying sheet (check those forwarded):
Des. report, Tide books, Marigrams, Boat sheets,
 Sounding books, Wire-drag books, Photographs.
Data from other sources affecting sheet

Remarks:

PROGRESS CHART

SHOWING CONDITION OF RECORDS OF

Hydrographic Sheet No. 3985 Field No. I

S.E. Alaska

Wire drag survey of Stephens Passage, Favorite Channel - Lynn Canal

Scale 1 - 20,000

Date of Survey June 21 - Aug. 1917.

Surveyed by Wire Drag Party No. 4 L.O. Colbert, Chief of Party

Day	DATE	Signaled angles compared	Distances entered	Distances checked	Length of upright entered	Length of upright checked	Correction entered	Correction checked	Drag depth entered	Drag depth checked	Reducers entered	Reducers checked	Effective depth entered	Effective depth checked	Effective depth diagram entered	Effective depth diagram checked	Positions plotted	Dragged strip traced	Tracing checked	Area subdivided	Subdivision checked	Transferred and inked	Compared with chart
A	June 21, 1917	GRK RJB	RJB	BF					BF		BF		BF		BF		ER						
B	" 26 "	GRK RJB	RJB	BF					BF		"		"		"		ER						
C	" 27 "	GRK RJB	RJB	BF					"		"		"		"		ER						
D	" 28 "	GRK RJB	RJB	BF					"		"		"		"		ER						
E	" 30 "	GRK RJB	RJB	BF					"		"		"		"		WHC						
F	July 10, "	GRK RJB	RJB	BF					"		"		"		"		WHC						
G	" 11, "	I.P.	-	-							"		"		"		WHC						
H	" 17, "	GRK RJB	RJB	BF					"		"		"		"		WHC						
J	" 19, "	GRK RJB	RJB	BF					"		"		"		"		WHC						
K	" 20, "	GRK RJB	RJB	BF					"		"		"		"		WHC						
L	" 21 "	GRK RJB	RJB	EEK					"		"		"		"		WHC						
M	" 24 "	GRK RJB	RJB	BF					"		"		"		"		WHC						
N	" 25 "	GRK RJB	RJB	BF					"		"		"		"		WHC						
P	" 26 "	GRK RJB	RJB	BF					"		"		"		"		WHC						
Q	" 27 "	GRK RJB	RJB	BF					"		"		"		"		WHC						
R	August 7 "	GRK BF	BF	WHC					"		"		"		"		WHC						
S	" 8 "	GRK BF	BF	WHC					"		"		"		"		WHC						
T	" 9 "	GRK BF	BF	WHC					"		"		"		"		WHC						
U	" 10 "	GRK RJB	RJB	WHC					"		"		"		"		WHC						
V	" 11 "	GRK RJB	RJB	GRK					"		"		"		"		WHC						
W	" 23 "	"	"	ER					"		"		"		"								
X	" 24 "	"	"	BF					"		"		"		"		WHC						
Y	" 29 "	"	"	BF					"		"		"		"		WHC						
Z	" 31 "	"	"	BF					"		"		"		"		WHC						
		End of sheet																					

I.P. - indicates independent positions. This Progress Chart, checked to show the condition of the office work, should be forwarded to the office with the records.

SURVEY
NOV 5 1917

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
E. LESTER JONES
SUPERINTENDENT.

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET NO. 3985. (FIELD# 1)

SOUTHERN PART OF LYNN CANAL
SOUTHEAST ALASKA,

by
WIRE DRAG PARTY NO. 4
L. O. COLBERT, CHIEF OF PARTY.

1917.

Scale of sheet 1 - 20,000

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET NO. 3985. (FIELD NO. 1)

SOUTHERN PART OF LYNN CANAL, SOUTHEAST ALASKA.

LOCALITY AND LIMITS:

The area covered by this sheet is located in the southern part of Lynn Canal extending southward from Point Bridget to the Northern Entrance to Favorite Channel. The southern limit is marked by a line joining the northern end of Shelter Island with Bird Island. The western limit is marked by a line joining Little Island with a prominent point two miles north of Point Whidbey. This line passes about one mile east of the latter point.

DEPTH DRAGGED:

It was planned to cover this area with a depth of at least 85 feet at mean lower low water. In most of the area, this was carried out. In a few odd cases, close to shore and in the vicinity of charted shoals, a less depth was dragged to avoid excessive loss of time.

Shoals Located:

But one dangerous shoal was found. It lies about a mile west of Sentinel Island Light. The least depth found was 31 feet. Several other uncharted shoals were located as shown on the sheet but none of these were of greater depth than the deepest draft of the largest steamers on this coast.

Adjoining Sheets:

Sheet No. 2 (Field Number) adjoins this sheet on the South. The area north of this sheet has not been dragged.

Tides:

An automatic gauge was established in Auke Bay and continuous observations were made thruout the season for the reduction of soundings and drag depths.

COAST PILOT NOTES.

During the course of this work anchorage for the tug L. Roscoe was found in Benjamin Cove on the Northeast side of Benjamin Island. There is good protection from all except northerly winds, tho the depth is deeper than is desirable. For swinging room it is necessary to anchor in about 17 fathoms. Small boats and launches can find good anchorage closes in where the depth is 9 fathoms.

There is an anchorage off the south side of Benjamin Island which is sometimes used by the large passenger steamers for temporary shelter while awaiting a strong Taku(or northerly) wind to abate in Lynn Canal.

A small anchorage for launches was found east of the northern end of Mab Island. However there is insufficient swinging room here for vessels longer than 100 feet.

Anchorage in the Bights along the east shore of Lincoln ~~Island~~ Island are not recommended on account of the strong current which sets along this shore during certain stages of the flood tide.

REMARKS:

This sheet was forwarded to the Office at Washington before it was inked. At the time it was forwarded, I was under instructions to proceed with all the officers in this party to Washington with all sheets and records in order to complete same at that office.

L. O. Robert.

Hyd. and Geo. Engr. C. & G.S.

Chief, Wire Drag Party No. 4

appendix attached

B.F.

Original

Appendix to accompany
Descriptive Report No. 3985.

DESCRIPTIONS OF SHOALS AND SPECIAL SOUNDINGS.

A shoal about 100 meters north and southeast with a least depth of 34 feet lies south of Benjamin Island about 1440 meters southeast of signal Hut. The character of the bottom is muddy. Position of least depth:

Lat. 58° 32' 1110 meters ✓
Long. 134° 52' 935 "

A shoal, muddy bottom, 400 meters north and south, 100 meters wide, with a least depth of 78 feet, lies north of Gull Island. Position of least depth about 1120 meters northwest of signal Gull.

Lat. 58° 30' 1400 meters ✓
Long. 134° 52' 370 meters

A depth of 77 feet, rocky, was located about 930 meters east of signal Gull. 120 meters to the east no bottom at 29 fathoms was obtained.

Lat. 58° 30' 510 meters ✓
Long. 134° 51' 135 "

South of Poundstone Rbck a depth of 48 feet was obtained with rocky ^{bottom} ~~body~~ about 2200 meters south of signal Sent on Sentinel Island. Position of least depth:

Lat. 58° 31' 890 meters ✓
Long. 134° 55' 565 "

1850 meters nearly due west of signal Sent, a depth of 31 feet was found on a shoal about 200 meters in extent. 100 meters north, a depth of 70 feet was found. The bottom is hard and a thick kelp patch covering an area of 150 meters x 50 meters exists which does not show on the surface. Position of least depth:

Lat. 58° 32' 1306 meters ✓
Long. 134° 57' 205 "

Just northwest of Poundstone Rock a small pinnacle 39 feet deep, surrounded by 8 to 9 fathoms, was located. This pinnacle is about 1860 meters southwest of signal Sent on Sentinel Island.

Lat. 58° 31' 1315 meters ✓
Long. 134° 55' 907 "

At the southern extremity of Benjamin Island a sunken reef close inshore has a depth of 20 feet, rocky bottom, about 100 meters in extent north and south; lies 900 meters southwest of (C) Hut.

Lat. 58° 32' 1640 meters
Long. 134° 54' 400 "

About 260 meters due south of (C) Nor. on North Island a small detached pinnacle at end of shore reef has a least depth of 40 feet.

Lat. 58° 34' 730 meters
Long. 134° 56' 85 "

20 f.

A rocky shoal, 100 meters in extent, with a least depth of 48 feet was located northwest of Vanderbilt reef.

Lat. 58° 35' 930 meters
Long. 135° 01' 260 "

About 240 meters northeast of signal Con on Lincoln Island a sunken reef with a least depth of 15 feet was found. This is close inshore. About 100 meters southwest no bottom of 20 fathoms could be had.

South of this a small shoal, rocky bottom, 38 feet least depth, is surrounded by 64 feet, sandy bottom. Position of 15-foot reef:

Lat. 58° 28' 1330 meters
Long. 134° 56' 270 "

Close inshore to Shelter Island between Lincoln and Shelter Islands, a least depth of 21 feet was obtained of rocky bottom. The reef extends east and west about 400 meters with a depth of 52 feet at western extremity.

About 20 meters to the west of this no bottom at 19 fathoms could be had. This shoal is about 200 meters wide and the least depth lies about 1190 meters northwest of (C) But.

Lat. 58° 27' 1840 meters
Long. 134° 55' 400 "

A small pinnacle 33 feet least depth was located lying on a shoal about 120 meters in extent northeast and southwest.

This shoal was not dragged over because of strong tide encountered in this vicinity. It was considered dangerous in handling ship and launch. This point should be given wide berth in navigating on account of long reef extending off.

The least depth lies north of Shelter Island about 2160 meters
southeast of signal Link on Lincoln Island.

Lat. 58° 29' 820 meters
Long. 134° 56' 140 " ✓

January 19, 1918.

Benjamin Friedenberg

Aid, Coast and Geodetic Survey.

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

REFER TO No.

5-VEC

LIBRARY
Place with descriptive report
of hydrographic sheet No. 3985
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

J.S.G.
HYDROGRAPHY ETC., (HT)

PRINTING & SALES
Furnish Drawing Section with
one black and white proof on
paper

Drafting

Chief, Div. of Hydro. & Topog.: *HC9*

Chief, Division of Charts:

Tidal reductions have been approved in
5 volumes of Wire-Drag and Sounding records for

HYDROGRAPHIC SHEET 3985

Stephens Passage and Lynn Canal, Alaska
L.O. Colbert in 1917.

Plane of reference is
Mean lower low water, reading

3.8 ft. on the tide staff at Auke Bay,
north end of Stephens Passage.

L. P. Shidy

Acting Chief, Section of
Tides and Currents.

Verification Report of Wire Drag 3985.

This sheet was submitted to the office by the field party with all the protracting relative to drag work, complete and in pencil. The tidal subdivisions and other depth changes were plotted and the entire inking of the sheet was done by the undersigned.

Verification of the protracting showed no errors of any consequence.

The A&P sheet was compiled so as to show all depths of 50 ft. and over, in areas for every 5 ft. of change of effective depth. Below this figure the usual practice of every 1 ft. change of depth was shown.

The entire area was well dragged, sufficient overlap being made by drag ships in all cases.

Sufficient soundings were obtained to prove the least depth in each instance where drag grounded.

Where drag grounded and no sounding was obtained the area was later dragged and cleared of sufficient depth to insure safety of navigation.

The records were in excellent condition.

Respectfully submitted,
Alonzo Barr,
Draftsman.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 9-DRM

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

Section of Field Records.

Report on Wire Drag Sheet No. 3985

Surveyed in 1917.

Chief of Party: L. O. Colbert

Surveyed by: Wire Drag Party No. 4. Instructions dated Mar. 8, 1917.

Protracted and Inked by W. H. Clark and A. Baer

Verified and Area and Depth Sheet by: A. Baer.

1. The depth and extent of dragging satisfy the specific instructions.
2. The least water was found on all shoals discovered by the drag. This does not include shoals found at the outer limits of the drag work.
3. The overlaps are sufficient.
4. There is but one split on this sheet and that is just south of Benjamin Island. The 40 foot spot found in this locality was not dragged over to determine the least water. As this is used as an anchorage for vessels going to Skagway, it is recommended that additional work be done here. The drag should also be carried closer inshore in the channel east of Benjamin Island. The area in the vicinity of the 33 foot spot northwest of Shelter Island should be dragged over to determine the least depth. Attention is called to the fact that the western side of the channel between Sentinel Island and Poundstone Rock, which is the main used channel, was not dragged to a sufficient depth at its north end to insure safe navigation. Only a narrow strip was dragged to 80 feet, the balance being 19 to 32 feet. It is, therefore, recommended that a deeper drag be carried from the $5\frac{1}{2}$ fathom spot to Poundstone Rock and as close to these as possible, with sufficient overlap on the 85 foot strip.
5. Reviewed by A. L. Shalowitz, September, 1922.