3986

Diag. Cht. No. 8202-1

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ..... *Office No.* H-3986

LOCALITY

State ALASKA

General locality STEPHANS PASSAGE

Locality

1917

CHIEF OF PARTY

L. O. Colbert

LIBRARY & ARCHIVES

DATE NOVEMBER 5, 1917

8-1870-1 (1)

3986

Form 537
11—5812

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. 3986 (Field NO. 2)

State . . . Southeast Alaska. . . . . .

General locality . Stephens Passage . . . . . .

Locality . . Saginaw and Favorite Channels . . . . . .

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

Surveyed by . . . . Wire Drag Party No. 4 . . . . . .

Date of survey . . . . 1917 . . . . . .

Scale . . . . . 1-20,000 . . . . . .

Soundings in . . . . Feet . . . . . .

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

Protracted by . D.F. . . . Soundings in pencil by D.F. . .

Inked by D.Friedenberg. . Verified by . . . . . .

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: Soundings in pencil not reduced.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 583

Sheet (1) of 2 sheets.

PROGRESS CHART

SHOWING CONDITION OF RECORDS OF

Hydrographic Sheet No. 3986 Field No. II

Wire drag survey of Stephens Passage, Vicinity of Fritz Cove - Favorite Channel (S.E. Alaska) Portland Is.

Scale 1-20,000 Date of Survey May 16 - Sept 6 - 1917.

Surveyed by Wire Drag Party No. 4

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	May 16-1917	GRK RJB	RJB	BF	ER	—	—	—	ER	BF	BF		BF		BF		BF	BF		BF		BF	
B	May 17 "	GRK RJB	RJB BF	RJB	—	—	—	—	ER	"	"		"		"		"	"		"		"	
C	" 21 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
D	" 22 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
E	" 23 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
F	" 24 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
G	" 25 "	GRK WHC	RJB BF	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
H	June 8 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
J	" 9 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
K	" 12 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
L	" 13 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
M	" 14 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
N	" 15 "	GRK RJB	RJB	BF	—	—	—	—	—	—	—		—		—		—	—		—		—	
P	" 16 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
Q	" 21 "	GRK RJB	RJB	RJB BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
R	" 23 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
S	" 27 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
T	" 28 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
U	" 30 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
V	July 5 "	GRK BF	BF	RJB	—	—	—	—	ER	"	"		"		"		"	"		"		"	
W	" 28 "	GRK RJB	RJB	BF	—	—	—	—	ER	"	"		"		"		"	"		"		"	
X	August 6 "	GRK BF	BF	WHC	—	—	—	—	BF		"		"		"		"	"		"		"	
Y	" 14 "	GRK RJB	RJB	BF	—	—	—	—	BF		"		"		"		"	"		"		"	
Z	" 15	GRK BF	BF	GRK	—	—	—	—	BF		"		"		"		"	"		"		"	
A'	" 16	GRK RJB	RJB	BF	—	—	—	—	BF		"		"		"		"	"		"		"	
B'	" 17	GRK RJB	RJB	BF GRK	—	—	—	—	BF		"		"		"		"	"		"		"	

This Progress Chart, checked to show the condition of the office work, should be forwarded to the office with the records.

11—6061

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 588

PROGRESS CHART

SHOWING CONDITION OF RECORDS OF

Hydrographic Sheet No. 3786 Field No. II

Wire drag survey of Stephens Passage, Vicinity of Fritz Cove - Portland Is - Favorite Channel S.E. Alaska.

Scale 1-20,000 Date of Survey May 16 - Sept 6 - 1917

Surveyed by Wire Drag Party No 4

Day	DATE	Signals 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
C'	Aug. 23, 1917	GRK RJB	RJB	BF	—	—	—	—	BF		BF		BF		BF		BF	BF		BF		BF	
D'	Aug. 24, 1917	GRK RJB	RJB	BF	—	—	—	—	"		"		"		"		"	"		"		"	
E'	Aug. 27, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
F'	Aug. 28, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
G'	Aug. 29, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
H'	Aug. 30, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
J'	Sept. 1, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
K'	Sept. 2, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
L'	Sept. 6, 1917	GRK RJB	RJB	"	—	—	—	—	"		"		"		"		"	"		"		"	
	End of Sheet																						

(BF) Depth Diagram on tracing cloth has been compiled

This Progress Chart, checked to show the condition of the office work, should be forwarded to the office with the records.

11—6061

DEPARTMENT OF COMMERCE.

COAST AND GEODETIC SURVEY.

E. LESTER JONES,

SUPERINTENDENT.

A DESCRIPTIVE REPORT

to accompany

WIRE DRAG SHEET NO. 3986. (FIELD NO. 8)

SAGINAW AND FAVORITE CHANNELS AND NORTHERN END OF STEPHENS PASSAGE

SOUTHEAST ALASKA,

by

WIRE DRAG PARTY NO. 4

L. O. COLBERT, CHIEF OF PARTY.

1917

Scale of sheet 1 = 20,000.

A DESCRIPTIVE REPORT
TO ACCOMPANY
WIRE DRAG SHEET NO.3986.(FIELD NO.2)

SAGINAW AND FAVORITE CHANNELS
and
NORTHERN END OF STEPHENS PASSAGE.

Localities and Limits;

The area covered by this sheet comprises all of Favorite and Saginaw Channels, also the Northern end of Stephens Passage as far as Outer Point. Lines were extended into Barlow Cove and Auke Bay.

Depth Dragged:

The standard depth to which this area was dragged was 85 feet at mean lower low water. In several instances, as in Barlow Cove, Auke Bay and in the lines run close inshore and up to charted reefs, this depth was reduced to about 40 feet.

Shoals Located:

There were no important shoals dangerous to navigation in this area. Several shoals were found as will be noted by referring to the sheet, but these were either close inshore or were covered by atleast 10 fathoms of water.

The depth over Spuhn Rock was reduced from one fathom to two feet as the result of a special hydrographic investigation. Reported by letter 221 of 1917 Not on W.D. Sheet 7a

In the small boat passage north of Coghlan Island two uncharted rocks were located. One is awash at mean lower low water and the other is covered by 3 feet at the same stage of the tide. The location of these rocks is marked on the boat sheet. Transferred to Smooth Sheet 7a.

In the vicinity of Auke Bay and Outer Point several outlying boulders and reefs were charted by the topographic party. For the proper locations of these see the topographic sheet of this section.

Adjoining Sheets;

The sheet is joined and overlapped on the north by Field Sheet No. 1 and on the South by Field Sheet No. 3.

Tides;

For the reduction of soundings and drag depths the observations compiled from the automatic gauge at Auke Bay are used.

Coast Pilot Notes;

No currents were observed in this section on account of the lack of equipment to spare from drag operations.

Good anchorage can be had in TEE HARBOR at the south end in 10 to 15 fathoms. During southeasterly weather, williwaws sweep out of the harbor in gusts of greater violence than that of the winds in the channel. This increase in violence is very noticeable in making the entrance and sometimes causes small craft some inconvenience. However there are no seas within the harbor and small launches may escape the willawaws by anchoring in 6 to 9 fathoms close to the beach at the southern end.

In Auke Bay there is good protection from Southeast winds in the vicinity of the Cannery and about on quarter mile south of it. Anchorage for the Tug L. Roscoe was found in ten fathoms, soft bottom. From this anchorage the bottom slopes off very rapidly to deep water. The strong southeast winds pass over head and are not felt this close inshore. Southwesterly winds do not enter the bay with any violence.

There is good anchorage at the head of Barlow Cove from all but northerly winds, in 10 to 15 fathoms. It is necessary however to approach close to the head of the Cove on the eastern side to find this anchorage.

Remarks:

The projection for this sheet was made and forwarded to the Washington Office with the intention of taking up the the plotting at that office with the members of this party under specific instructions from the Superintendent. After the sheet had been forwarded, all the officers were transfered except Mr. Friedenburg so that at this date the smooth plotting has not been taken up. It is therefore recommended that the plotting of this sheet and the reduction of the records be done by this officer under competent supervision.

Oct. 29th 1917

L.O. Colbert.
Hyd. and Geo. Engr. C. & G. Survey.
Chief, Wire Drag Party No. 4

Appendix attached
B.F.

Original

Appendix to accompany
Descriptive Report No. 3986

DESCRIPTIONS OF SHOALS AND SPECIAL SOUNDINGS

A shoal off the southeast side of Shelter Island extends from the least depth of 12 feet in an eastand aouth direction. It slopes gradually toward the south for about 1000 meters reaching a depth of 51 feet. Toward the east there is even bottom for about 300 meters when it begins to slope toward the northeast for about 200 meters. The least depth is above rocky bottom, the rest of the shoal being soft and of mud. Position of least depth of 12 feet, about 830 meters south of signal Shel.. RWP 1/24/95

Lat. 58° 12' 1810 meters
Long. 134° 48' 355 "

A shoal, least depth of 68 feet, about 1290 meters north of signal Clear, extends east and west for about 200 meters.

Lat. 58° 17' 400 meters
Long. 134° 45' 750 "

A least depth of 40 feet, about 1005meters south of signal Bol, was located surrounded by 75 to 100 feet of water with soft bottom. This is probably a large boulder.

Lat. 58° 22' 940 meters
Long. 134° 45' 260 "

A small shoal, about 100 meters in extent, close in shore, about 540 meters, northeast of signal Tent has a least depth of 14 feet. This shoal has a rocky bottom and probably is a pinnacle as 39 feet of water, bottom soft, surrounds it. Position of least depth:

Lat. 58° 17' 1470 meters
Long. 134° 47' 690 "

A small shoal in Favorite Channel about 200 meters wide, extending east and west has a soft bottom, with a least depth of 80 feet. It lies about 950 meters northeast of signal ⊙ Kit.

Lat. 58° 25' 360 meters
Long. 134° 49' 590 "

East of Aaron Island and about 870 meters southwest of signal Dog, a least depth of 67 feet was obtained. The nature of the bottom is soft and sticky, the entire shoal being approximately 500 meters east and west and 200 meters wide, surrounded by 100 feet of water. Position of least depth

Lat. 58° 25' 1360 meters
Long. 134° 49' 845 "

Southwest
Southeast of the shoal mentioned above a least depth of 56 feet, rocky bottom, was obtained, surrounded by a depth of 80 feet, soft bottom. This sounding is approximately southwest of signal Dog about 1350 meters.

Lat. 58° 25' 1020 meters
Long. 134° 50' 220 "

About 1/2 mile ~~east~~ west of Tee Harbor and the same south of Cohen Island a sounding of 50 feet was obtained in rocky bottom. A depth of 71 feet in soft bottom was found, evidently showing a pinnacle. Least depth is about 805 meters southwest of signal Bor.

Lat. 58° 25' 715 meters
Long. 134° 46' 660 "

Southwest of Aaron Island and close inshore about 515 meters from signal Dog, a depth of 39 feet in mud bottom was obtained.

Lat. 58° 25' 1390 meters
Long. 134° 48' 935 "

A special investigation was made of the sunken rock in the entrance to Tee Harbor as this appears to be charted wrong. Covered with leaf kelp, which does not show, the rock is about 5 feet long and 3 feet wide, with 4 fathoms of water surrounding it. It is covered with 9 feet of water at M L L W, but a sounding of 6 feet was obtained when the stage of the tide was-3 feet.

AWOIS # 52288
12/95 RWD

Lat. 58° 25' 315 meters
Long. 134° 46' 153 "

In Saginaw channel and close inshore a least depth of ~~39~~ 38 feet was obtained; of rocky bottom, is surrounded by a shoal 400 meters in extent, soft bottom toward the northwest and hard bottom toward the southeast. Least depth lies about 895 meters east signal Wag.

Lat. 58° 21' 475 meters
Long. 134° 51' 605 "

Close inshore, in Saginaw channel, about 755 meters northwest of signal Ed, a depth of 49 feet, sandy bottom, was obtained.

Lat. 58° 51' 1090 meters
Long. 134° 43' 695 "

Between George Rock and Outer Point on Douglas Island, about 440 meters north of signal Cling, a depth of 30 feet, rocky bottom, was obtained.

Lat. 58° 41' 910 meters
Long. 134° 18' 195 "

Benjamin Friedenberg

January 19, 1918. Aid, Coast and Geodetic Survey.

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

March 12, 1919.

Place with descriptive report of hydrographic sheet No. 3986

Drawing Section.

Chief, Division of Hydro. & Topog.: HCG

Chief, Division of Charts:

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

HYDROGRAPHIC SHEET 3986

Stephens Passage, Alaska
L.O.Colbert in 1917.

Plane of reference is
Mean lower low water, reading

3.8 ft.on tide staff in Auke Bay, northern
end of Stephens Passage.

L. P. Shidy

Acting Chief, Section of
Tides and Currents.

Report of Verification of H-3986 (Wire Drag)

The soundings were verified by R. L. Johnston and the wire drag survey by the writer. The protracting and field drafting was excellent. The area was well covered, there being but few splits which are indicated on the A & D. Tracing. The notes were well kept with the exception of a few places.

The tide reducers were changed in some cases by the tide division, and to reduce the time consumed in verifying these changes, when they did not exceed one foot, were disregarded after E day except on W day where the whole day was corrected. In W day where the change of effective depth resulted in a change of the base color, the whole depth was inserted in the proper color and the old color base retained. This should lead to no confusion.

The shoreline for the A & D sheet was traced from contemporary topographic sheets.

The junction with adjoining sheets is sufficient.

The following are some places that might be investigated at a convenient time. While in a majority of cases the points are not dangerous, yet a conclusive settlement of the doubtful spot is desirable.

1) Pos. 32C G. at buoy 2 Eff. depth 86' Sndg. no bottom 20 fms (see p. 6, Vol. 2) Later covered with 51' drag. *[marginal note:] not certain whether buoy was actually grounded, no necessity for dragging. A.L.S.*

2.) Pos 17D G. (no buoy given) Eff. depth 86' Sndg. 2 5 (no angles) *[marginal note:] Practically entire length of drag later covered by deeper drag → A.L.S.*

3) Pos 22E G. buoys 2-3 Eff. depth 90' no sndgs here but shoal sndgs at buoy 14 *[note:] No need for investigation. A.L.S.*

4.) Pos 18F Apparent shoal buoys 3-4 Eff. depth 89' no sndgs. *[marginal note:] Drag on previous day passed over this spot with same depth and did not ground. No need to investigate. A.L.S.*

5.) " 28K G. (no buoy given) no sndgs. *[note:] Probably ~~same~~ grounded in same place as 26-U. See below. A.L.S.*

6.) Drag steamer touched rock in taking up drag Sndg 12½ fms no other sndgs. (End of Q day) *[marginal note:] Bow of steamer touched Eagle Reef which is covered at H.W. ~~The reef is charted. A.L.S.~~ No need to investigate. ALS*

7.) Pos 45R Big buoy bumping no note whether F or N buoy. *[marginal note:] Both buoys covered on other days. A.L.S.*

8.) Pos 63R F buoy touching Eff. depth 18' no sndgs. *[marginal note:] Touching in ~~Point~~ end of ~~reef making out from shore~~. A.L.S.*

9.) Pos 26U G. drag appears to have previously passed at greater depth Eff. depth 51'. *[note:] This lies in vicinity of 50' sdg. found. Cleared by 44' drag. No need to investigate. A.L.S.*

10.) Pos 13V G at buoys 7-8 Eff. depth 50' Sndg 73' Cleared at 47' *[marginal note:] 40' sdg. close by. No need for investigation A.L.S.*

Close to above A.L.S. 11 / Pos 23 W F buoy bumping Eff depth 39' no pudgs

Close to above A.L.S. 12 / " 476' " " " " " 53' " "

Ground a reference mark A.L.S. 13 / " 424' S. " " 79' " "

Frank M. Albert, Draftsman
Section Field Records

June 9, 1923.

E.P.E.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DRM

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

June 13, 1923.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 3986

Surveyed in 1917.

Instructions dated March 8, 1917.

Chief of Party, L. O. Colbert.

Surveyed by Wire Drag Party No. 4.

Protracted and Inked by B. Friedenberg.

Verified and Area and Depth Sheet by F. M. Albert.

1. The depth and extent of dragging satisfy the specific instructions except that at the northern end of the sheet in Favorite Channel a small area, at the junction of this sheet with 3985, was dragged to 56 feet when the surroumding area was dragged over 80 feet. This area lies in very deep water. Also the area between Gull and Bird Island should have been dragged.

2. A clearance depth was obtained over all shoals discovered within the limits of the drag sufficient to insure safety to surface navigation in this locality. All other shoals discovered and not dragged over are either close inshore or are extensions of charted reefs.

3. The overlaps on this sheet and with the adjoining sheets are sufficient.

4. There are three splits on this sheet. One just south of Eagle Reef is of very small extent and lies in comparatively deep water. The second is south of Aaron Island and is at the inshore limit of the drag. A 39-foot sounding was obtained here and is probably the end of the reef making out from Aaron Island. It is therefore unnecessary to drag this split. The third split occurs in Barlow Cove opposite Barlow Islands. The split was caused by lifting the drag over some halibut gear. It lies in deep water, but if work is done in this locality it should be dragged over.
Fritz Cove should be dragged since the head of it is used as an anchorage. Also, if possible, the drag should be carried closer to the south shore of Shelter Island and Strauss Rock should be dragged over to determine the least water on it. The charted depth over this

rock is 12 feet. As mentioned in paragraph 1 the channel between Gull and Bird Island should be dragged if work is ever resumed here. However, the main through channel is complete.

5. The two uncharted rocks north of Coghlan Island which are mentioned in the Descriptive Report were transferred to the smooth sheet from the boat sheet, as this is the only existing record for these rocks.

6. Reviewed by A. L. Shalowitz, June, 1923.