

3990

Diag. Cht. No. 8201-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. _____ Office No. H-3990

LOCALITY

State ALASKA

General locality SOUTHEAST ALASKA

Locality FREDERICK SOUND

1917

CHIEF OF PARTY

A. Joachum

LIBRARY & ARCHIVES

DATE NOVEMBER 22, 1917

3990

Wire Drag Party No. 3

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

Wire Drag Sheet No. 0

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. **3990**

State **SE Alaska**

General locality **Frederick Sound**

Locality **Dry Strait to Sukoi Islands**

Chief of party **A. Joachims**

Surveyed by **Wire Drag Party No. 3**

Date of survey **September 1917**

Scale **1/20,000**

Soundings in **Feet**

Plane of reference **Mean lower low water**

Protracted by **J.D.C.** Soundings in pencil by **W.D.P.**

Inked by **W.D.P.** Verified by **A.L. Shalowitz**

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:

Descriptive report and records forwarded on separate mail

DEPARTMENT OF COMMERCE.

U. S. COAST AND GEODETIC SURVEY.

E. Lester Jones, Superintendent.

DESCRIPTIVE REPORT OF WIRE DRAG SHEET NO. **3990**

FREDERICK SOUND, S. E. ALASKA.

VICINITY: MACDONALD ISLANDS TO DRY CREEKS.

SURVEYED BY WIRE DRAG PARTY NO. 3.

A. Joachims, Chief of Party.

Season of 1917.

Scale 1/20,000.

DESCRIPTIVE REPORT OF WIRE DRAG SHEET NO. 6990

Frederick Sound, S. E. Alaska. Vicinity: Dry Straits to MacDonald IDC.
Surveyed by Wire Drag Party No. 3. A. Joachims, Chief of party.
Season of 1917.
Scale, 1/20,000.

Limits of the sheet.

This survey is a wire drag examination of the area in Frederick Sound which is bounded on the north by the southern limits of Wire Drag Sheet No. 1, near MacDonald Islands, on the east by the mainland, on the south by Dry Strait, and on the west by the shore of Mitkof Island.

Effective Depth Dragged.

In all cases except inshore work, 80 or more feet at mean lower low water was dragged.

Distance offshore.

Along the Mitkof Island shore an effort was made to keep the drag within 200 to 300 meters off shore. The inshore launch continued to sound throughout the time and in this way the drag was kept in as close as possible without going aground.

From the MacDonald Islands to LaConte Bay along the mainland shore, this vicinity is blocked by packs of ice bergs. Each day that work was done in this vicinity trouble was experienced with ice, at times endangering the launches and running the risk of losing the drag. For this reason and also lack of necessary time the above mentioned area was not dragged. It is probably of no consequence, as vessels can never navigate in this region with safety.

Shoals.

1. A soft sticky shoal with a least depth of 72 feet at mean lower low water was discovered 350 meters east of the northern end of MacDonald Island.

This shoal is estimated to be about 200 meters in diameter.

Since it is so far away from the waters frequented by vessels a further investigation was not made. Packs of ice in this vicinity would have made further work impracticable.

2. At a point 1600 meters NNW (true) of triangulation station ROCK and 200 meters offshore the drag was grounded. Here a least depth of 50 feet at mean lower low water was located. Time was not available for further investigation. However, it was so very close inshore that it is probably of no consequence.

Shoals.

3. A soft bottom shoal with a least depth of 71 feet at mean lower low water was discovered 3100 meters NW (true) of hydrographic station PROM and 1400 meters off shore. This shoal was discovered late in the season after the party had already received telegraphic orders to return to Seattle as early as possible. A further investigation was impracticable. However, the shoal was estimated to be about $\frac{1}{4}$ mile in diameter. The shoal was carefully examined by sounding and it is reasonable to believe that approximately the shoalest sounding was found. The drag curves on this shoal are a little complicated and it might seem from the smooth sheet that a 55 foot hook-up went aground. However, this was not true as 40 feet was grounded and the drag reversed.

Unfinished Area.

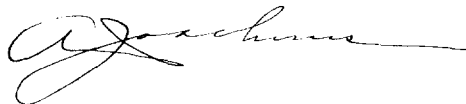
Just south of triangulation signal TAKE there remains a small area close in shore that has not been completed. Aside from this the area near the mainland is always so badly blocked by ice that its completion would be impracticable.

Conclusion.

The important regions within these limits were completed as far as practicable. The sudden closing of the season's work made it necessary to only take up the most important area. However, as far as navigation is concerned, it might be said that a fairly complete wire drag examination was made.

STATISTICS of this sheet will be found on attached page.

Submitted by,



Chief of Wire Drag Party No. 3.

STATISTICS FOR WIRE DRAG SHEET "O" 3990

DAY	NO. MILES; LINEAR.	NO. ANGLES.	RETAINED SOUNDINGS.
A	2.7	152	
B	3.8	241	
C	5.5	271	1
D	7.0	338	
E	4.5	329	
F	3.9	247	7
G	3.0	265	1
H	2.0	149	3

Area in square miles,- 36.1

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

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

REFER TO NO. 5-VEC

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

LIBRARY
Place with descriptive report
of hydrographic sheet No. 3990
GA
Drawing Section.

April 9, 1918.

Division of Hydrography and Topography: *HCG*

Division of Charts:

Tidal reductions have been approved in
3 volumes of Wire-Drag record and Soundings for

HYDROGRAPHIC SHEET 3990

Frederick Sound, Alaska,
A. Joachims in 1917

Plane of reference is
Mean lower low water, reading
ft.
7.5 on the tide staff at Petersburg, Alaska.

L. P. Shidy

Acting Chief, Section of
Tides and Currents.

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

December 6, 1921.

Verification of Hydrographic Sheet No. 3990
By A. L. Shalowitz, Hydrographic & Topographic Draftsman.

The records for this sheet were in good condition and were very well kept. Notes covered everything. No difficulties were encountered in the verifying.

The plotting became careless at times. Positions 22 D to 25 D were wrongly plotted. Apparently angle for N buoy was used instead of F buoy. As this happened to be an error on the side of safety and as the positions are weak anyway, no change was made.

At 22 F the tide curve was drawn to 18 F of the end launch. This should have been drawn to five minutes past 18 F as the change occurred at 12:05. As it does not make any great difference it was not changed on the smooth sheet. Soundings 1 F to 7 F were poorly plotted, probably due to Δ Ag falling off the sheet and no extension being put on.

At 29 F the drag was aground. From the length of the drag used it would seem to indicate that the drag passed over the 86 foot spot. While possible it is not very probable, since this would preclude a 7 foot lift. The smooth sheet plotting was therefore accepted.

At 25 G (guide launch) the bight of the drag was drawn to join with 24 G of the end launch when the two positions were taken 15 minutes apart. When position 25 G was taken the end launch had their end of the drag up so that the bight of the drag should really be from 26 G (guide launch) to 24 G (end launch). This change would only eliminate a small area near the N buoy, which in reality was passed over by the drag even though the end launch had not yet completed setting out the drag. No change was therefore made on the smooth sheet.

In the vicinity of the 71 foot shoal near \odot MID it is difficult to tell just how the bights of the drag should be unless one was right on the ground. As any change would have been mere conjecture, the smooth

sheet plotting was accepted, particularly since this shoal will have to be redragged before any positive statement can be made as to the least depth existing.

Soundings 1 G and 2 H were very poorly plotted. The area on this sheet was well covered as far as was practicable, the omissions made being due to reasons outlined in the descriptive report.

A. L. Shalowitz

A. L. Shalowitz.
Hydrographic and Topographic 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. 3990

Surveyed in 1917.

Chief of Party: A. Joachims

Surveyed by: A. Joachims. Instructions dated March 24, 1917.

Protracted and Inked by J. D. Crichton and W. D. Patterson.

Verified and Area and Depth Sheet by A. L. Shalowitz.

1. The depth and extent of dragging satisfy the specific instructions as far as was practicable.
2. The least water was not found on the shoals discovered. See Descriptive Report.
3. The overlaps are sufficient.
4. As the main traffic in this locality is north of Wrangell Narrows, the area outlined on this sheet is sufficient. However, as there is a boat passage through Dry Straits at high water, the area in the vicinity of the 71 ft. shoal should be dragged, if the opportunity affords, to determine the least depth and also the drag work should be extended a little further south toward Dry Straits .
5. Reviewed by A. L. Shalowitz, August, 1922.