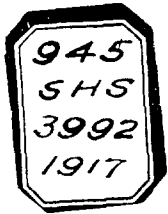


3992



Diag. Cht. No. 8201-2

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

State: *Alaska*

DESCRIPTIVE REPORT.

Hydro Sheet No. **3992**

LOCALITY:

Federicks
Sound

1917

CHIEF OF PARTY:

Joachim

3992

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.
Wire Drag sheet #2
Register No. 3992

State . . . **W.E. Alaska**

General locality . **Frederick Sound**

Locality **Cape Strait Light to Cape Fanshaw**

Chief of party . . **A. Joachims**

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

Date of survey . **May - September, broken intervals 1917**

Scale **1/20,000**

Soundings in **Feet**

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

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

Inked by . . . **W.D.P.** 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

**Tidal data, current Data, limits of adjoining sheet No.1 and 3
and planetable sheets of this vicinity, also boat sheets for two
launches**

Remarks: **The smooth sheet of the report for this sheet has not
been completed and the records are being held until reply has been
received of the receipt of this sheet at the office**

in sheet to the

Joachims
Chief of Party

DEPARTMENT OF COMMERCE

United States Coast and Geodetic Survey

E.Lester Jones, Superintendent

3992

Descriptive Report Wire Drag Survey Frederick Sound
South eastern Alaska,

Surveyed by Wire Drag Party No.3, 1917

Sheet No.2
Scale 1/20,000

A.Joachims, Chief of Party

Descriptive Report of Wire Drag Sheet No.2 in
 Frederick Sound S.E. Alaska., Season of 1917
 Wire Drag Party No.3 A. Joachims, Chief of Party
 Scale 1/20,000

Limits of the sheet

From a line approximately $1\frac{1}{2}$ miles west of Cape Strait and running north and south across the sound, this sheet extends in Frederick Sound west to a point about $1\frac{1}{2}$ miles east of Cape Fanshaw.

On the east end, this sheet connects up and overlaps on sheet no.1. On the west end, the days are either continued or overlap on sheet No.3.

Effective Depth dragged

The complete wire drag examination of this area was made with a drag carrying 80 or more feet at mean lower low water with the exception of the inshore work and one instant where a single buoy was hooked up slightly shoaler than was intended. The inshore work was dragged by a depth of 40 or more feet. The instant of the single buoy being hooked up occurred on "H" day when the upright of this buoy fouled causing the hook up to only be 90 Ft for this particular buoy.

Controll of the Survey

The signals used for this work were in most cases located by tertiary triangulation which was run by this party and later tied onto the primary scheme by Mr. E. W. Eickelberg. Some of the signals were located by the planetable.

Length of Drag

A greater portion of this work was done by means of the long drag ranging from 10000 to 12400 feet in length. The inshore work was covered with a much shorter drag. In all cases, however, the drag was of sufficient length to make it necessary for each vessel towing to take independent positions. In general, the drag strips overlapped each other about 200 to 300 meters.

Nature of the Inshore Work

An effort was made to run within 200 to 300 meters of shore, dipping into the small depressions as much as possible. This was carried out in all cases with the exception of the strip of shore line west of Portage Island where long shoals extend out from shore as indicated by patches of kelp. To closely develop this inshore area, a great amount of time would have been necessary, with a consequent retarding of the progress of the more important work. It is doubtful whether the dragging of this particular unfrequented inshore narrow strip is important enough to warrant dragging.

Shoals

No shoals of great importance to navigation were found by this examination, and the region proved to be clear within the depth dragged. On two occasions the drag was grounded in close to shore, once at a point 2.6 miles true west of of Portage Island, and again at a point 0.25 miles mag south of Grand Point.

The first of these shoals is about $\frac{1}{2}$ mile off Kupreanof Island and is inside a bight of the general shoreline. 35 feet at mean lower low water was the shoalest water found here. Lack of time did not permit futher examination of this shoal and is perhalsps not important enough to warrant further work.

The second shoal is about $\frac{1}{4}$ mile off Grand point where 84 Feet at mean lower low water was discovered. A drag carrying 76 feet at mean lower low water.

Tidal reducers for this work

The tidal reducers were taken from the data tabulated by the tide gauge at Petersburg. There was also an auxiliary tidal station at Whitney Island near Cape Fanshaw, however all the work was referred to the Petersburg Gauge.

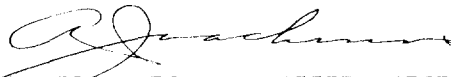
Conclusion

Current observations in this vicinity were taken and a separate report will be forwarded of the results. Coast Pilot notes will be found in the season's report of this work.

The Area covered is considered to have been thoroughly examined by means of the wire drag within the limits as mentioned above, with the exception on one small split, which lies 3.2 miles SE(true) of Grand Point and about 1 mile off shore of the mainland. This split developed after plotting the smooth sheet as it does not show on the boat sheet.

To the Superintendent,
U.S.Coast and Geodetic Survey,
Washington, D.C.

Compiled and submitted by



Junior Hydrographic and Geodetic Engineer
Chief of Wire Drag Party No.3

Statistics on sheet attached

SHEET OF STATISTICS FOR WIRE DRAG SHEET NO.2 3992

DAY	Number Angles	Number miles(stat) linear	Number retained soundings
A	214	5.2	
B	287	6.5	
C	378	9.4	
D	358	8.5	
E	252	4.8	
F	487	11.8	
G	163	3.7	
H	474	11.1	
J	111	3.1	
K	371	7.7	
L	368	9.3	
M	334	9.2	
N	194	5.3	
P	171	4.1	
Q	174	4.4	
R.	212	4.1	
S	171	3.5	1
T	156	4.2	
U	126	7.0	
V	300	8.5	
W	285	8.1	
X	244	8.8	
Y	152	3.0	7
total	---	----	----

Total area covered by sheet----- 112.7 square statute miles

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

REFER TO NO.

5-VBO

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

HYDROGRAPHY ETC., (HT)

LIBRARY

CHARTS (10)

Place with descriptive report
of hydrographic sheet No. 3992
April 10, 1918.

Division of Hydrography and Topography: *HC*

Drawing Section.

Division of Charts:

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

HYDROGRAPHIC SHEET 3992

Frederick Sound, Alaska
A. Joachims in 1917

Plane of reference is
Mean lower low water, reading

ft.
7.5 on tide staff at Petersburg, Alaska

Allowance made for difference in tide
at the place of sounding.

G. P. Shidy

Acting Chief, Section of
Tides and Currents.

8.056

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 4-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON April 6, 1923.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 3992

Surveyed in 1917.

Chief of Party, A. Joachims.

Surveyed by A. Joachims.

Protracted and Inked by W. D. Patterson.

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

1. The records conform to the requirements of the General Instructions.
2. The extent of dragging satisfies the specific instructions. The main area should have been dragged to a minimum depth of 80 feet but owing to an error in the hookup of one buoy, a very narrow strip was dragged to only 70 and 75 feet. (See Descriptive Report).
3. A clearance depth was obtained over all shoals discovered sufficient to meet the needs of navigation in the particular locality, with the following exception: The 35-foot spot on the south side of Frederick Sound about 3 miles west of Portage Island. Lack of time prevented further investigation of this shoal.
4. The overlaps are sufficient except as shown on the Area and Depth Sheet.
5. There are two splits on this sheet, both of which should be covered when opportunity affords. Also along the south shore between Portage Island and the 35-foot spot mentioned in Paragraph 3 the drag should be carried closer inshore.
6. The field plotting was generally good. Considerable changes had to be made in the depth strips on account of the 1/40 rule which was not in effect at the time this sheet was made, and also owing to changed tide reducers.
7. Reviewed by A. L. Shalowitz, April, 1923.