

4533a & b
4533b

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

State: SE. Alaska

11-5613

DESCRIPTIVE REPORT.

Hyd. No. 4533a
W.D. Sheets No. 4533b

LOCALITY:

Chichagof I. - Khaz Bay

Smooth Channel, The Gate, &

Elbow Passage

1925

CHIEF OF PARTY:

A.M. Sobieralski

DRAG

WWD
June 3, 1926.

~~Division of Hydrography and Topography.~~

Division of Charts:

Tide reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4533A

Locality: S. E. ALASKA.

Chief of Party: A. M. SOBIEKALSKI, in 1925.

Plane of reference is

10.4 ft. on tide staff at Ford Arm.

12.3 ft. do Kimsan Cove.

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.



Chief, Division of Tides and Currents.

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4533 B

Locality: S.E. Alaska.

Chief of Party: A. M. Sobieralski in 1925.

Plane of reference is MLW.
10.4 ft. on tide staff at Ford Arm.

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.
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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.



Chief, Division of Tides and Currents.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODESIC SURVEY.
E. LESTER JONES, DIRECTOR.

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DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #

Smooth Channel, Khas Bay, S.E. Alaska.
Scale 1,5000.

Season of 1925.

Steamer SURVEYOR.

A. M. Sobierski, H. & G. E., Chief of Party.

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

E. Lester Jones, Director.

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DESCRIPTIVE-REPORT

to accompany

HYDROGRAPHIC SHEET #

Smooth Channel, Khaz Bay, S.E. Alaska.
Scale 1:5000

Season of 1925.

Steamer SURVEYOR.

A. M. Sobierski, H. & G.E., Chief of Party.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET #

VICINITY OF SMOOTH CHANNEL, KHAZ BAY.

The work on this sheet is a revision and supplemental to work on hydrographic Sheet 2857, in accordance with instructions dated February 4, 1925, paragraph 16. In addition some work was done in Elbow Passage because some people were of opinion that this channel was better than the Gate for entering Klag Bay, and because there was a report that the sunken rock shown on Chart 8280 did not exist. While this rock was not found, the channel is obstructed by a ledge with depth of about 3 fathoms, and a heavy growth of kelp made it impossible to carry the wire drag across it.

The survey of the Gate was difficult on account of the currents. No attempt was made to find the least water on the sunken rock in this area. A beacon was erected on Klag Island which furnishes a range with the beacon on the spit at the north end of the Gate for passing this rock. These beacons are now maintained by the Lighthouse Service. See Coast Pilot Notes for directions for entering the Gate. 18 fms. this survey
H 2857
30.

In general, the soundings etc agreed with the survey on hydrographic sheet 2857. Discrepancies in topography in Elbow Passage make it difficult to compare the two surveys. Similarly along the shores of the northwestern end of Smooth Channel there appear to be some discrepancies. A minus sounding on sheet 2857 shown as a rock awash 250 meters S. E. ward of Δ Shale plots almost on the revised shore line. About 75 meters southeastward of this position there is a rock awash not shown on the chart, which at extreme low water is connected with the shore line.

The low water line southward of \odot Man appears to make out further than shown on the topographic sheet.

All the rocks in Smooth Channel are marked by a heavy growth of kelp in the summer and fall, but in winter and spring the kelp cannot be depended upon.

WIRE DRAG WORK.

The wire drag work in The Gate and Elbow Passage is shown on a tracing accompanying the hydrographic sheet. Called H 4533b.

The light wire drag was used, towed at extremely slow speeds. To prevent sagging, floats were attached every 25 ft. along the ground wire.

It was impossible to take the drag through Elbow Passage on account of thick anchored kelp.



A. M. Sobieralski
Commanding Officer
U.S.C.&.G.S.S.SURVEYOR.

STATISTICS OF HYDROGRAPHIC SHEET No. _____
 KHAZ BAY ----- Smooth Channel.

Date	1925	Letter	Volume	Miles of Sounding Lines	Soundings	Positions	Miles to and from Work	Launch
October	5	a	1	7.0	230	175	16.6	Delta
	6	b	1	10.7	335	249	16.6	"
	7	c	1	1.8	66	64	18.5	"
	8	d	1	2.2	112	107		"
	8	d	2	1.1	35	24	12.6	"
	9	e	2	5.6	125	77	13.6	"
	12	f	2	2.8	57	32	19.5	"
	13	g	2	2.8	132	80	18.4	"
	18	a	1	1.0	45	30	2.0	# 61.
				35.0	1137	838	117.8	
Area			- 1.05 Sq. Mi.					

Hydrographic Sheet No 4533^a
Chichagof Id. S. E. Alaska.

The regular hydrographic work combined with the "Wire Drag" shown on this sheet and on No. 4533^b seems to develop conditions through the three channels satisfactorily. The balance of the work appears too open for a proper development of bottoms of this character. The plotted soundings, however do not indicate dangers other than those shown on the sheet.

The "Wire Drag" through "The Gate" might have been extended South to join up with that shown on this sheet and the "Wire Drag" through "Ebbow Passage" might have been extended West through the narrow passage at Signal End.

Profecting by Field Party nearly accurate but numerous errors occurred in the plotting due to, what appears to be, a disregard to instructions for plotting fractions.

John D. Torrey
July 31/26.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

WASHINGTON December 4, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4533^a

Vicinity of Khaz Bay, Alaska

Surveyed in 1925

Instructions dated Feb. 4, 1925 (Surveyor.)

Chief of Party, A. M. Sobieralski

Surveyed by C. M. Durgin

Protracted by C. R. Bush, Jr.

Soundings plotted by A. M. Sobieralski

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions except that no boats' courses were given and no bottom characteristics were noted in The Gate nor in Elbow Passage.
2. The plan and character of development conform to the requirements of the General Instructions except that additional soundings should have been taken on the ledge obstructing Elbow Passage to determine its southern limit.
3. The plan and extent of the survey satisfy the specific instructions, the survey being primarily to supplement the work on H. 2857 in The Gate and in Smooth Channel.
4. The information on this sheet, together with the work on the old survey, is sufficient for drawing the usual depth curves.
5. The usual field plotting was done by the field party. The protracting was well done but the soundings were not plotted in accordance with instructions for plotting fractions.
6. There are no contemporary surveys joining this sheet. The junction with the old survey, as far as a general inspection is concerned, seems adequate.

7. No additional work is necessary except possibly to develop the shoal about 600 meters northwest of Twin Island.
8. Character and scope of field operations - very good.
Field drafting - very good.
9. Reviewed by A. L. Shalowitz, November, 1926.

Approved:

Chief, Section of Field Records (Charts)

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

Report on Verification of #4533 b Wire Drag.

The records are good. Plotting was inaccurate in some places, and where the discrepancy was small it was disregarded, otherwise it was changed.

In 'The Gate' the sounding of 1 $\frac{1}{2}$ fathoms at position 24c of #4533 a was plotted with signal DAN as the right object, and this location falls inside the area dragged to 23 feet effective depth. The boat sheet position is plotted with signal DEE as the right object and after critical study by Capt. Liacomuni and Capt. Ellis, this was used on the smooth sheet position. This 1 $\frac{1}{2}$ fathom sounding then falls well outside the path of the drag.

The drag barely avoids the 1 $\frac{1}{2}$ fathom spot 40 meters WNW of signal Mug in 'The Gate', and goes over without striking the 3 $\frac{1}{2}$ fathom spot 55 meters WNW of signal Mug.

Oct. 21, 1926.

F. M. Albert, Cartographer
Section of Field Records.

E.P.E.

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

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON December 7, 1926.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 4533^b

Khaz Bay, Alaska

Surveyed in 1925

Instructions dated February 4, 1925. (Surveyor)

Chief of Party, A. M. Sobieralski.

Surveyed by A. P. Ratti.

Protracted and inked by Field Party.

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

1. The drag work on this sheet was done primarily for the purpose of discovering any hidden dangers in Elbow Passage and The Gate. The effective depths are therefore insufficient for representation on the tinted charts except the drag strip in Smooth Channel.
2. The 2 5/6 fathom shoal in Elbow Passage found on H. 4533^a was not cleared by the drag on account of the thick kelp.
3. The field plotting was generally good, although inaccurate in places. The drag work in The Gate and in Elbow Passage is shown on a tracing which takes the place of the regular smooth sheet. The work in Smooth Channel is plotted on the smooth sheet for H. 4533^a. The Area and Depth Sheet includes all the drag work done.
4. No additional drag work is necessary unless it is intended to make a drag survey suitable for charting, in which case the effective depths will have to be increased.

The work in Smooth Channel is acceptable for charting.

5. Character of field operations - very good.
Field drafting - very good.
6. Reviewed by A. L. Shalowitz, November, 1926.

Approved:

Chief, Section of Field Records (Charts)

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 45332
45333b
WIRE DRAG

HYDROGRAPHIC TITLE SHEET

WIRE DRAG

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. _____

REGISTER NO. 45332

State SE. Alaska 45333b WIRE DRAG

General locality Khaz Bay Chichagofsk-Khaz Bay

Locality Smooth Channel, The Gate, and Elbow Passage

Scale 1-5,000 Date of survey Oct, 1925

Vessel Surveyor

Chief of Party A. M. Sobieralski No. 96

Surveyed by C. M. Durgin & A. P. Ratti W. D.

Protracted by C. R. Bush Jr.

Soundings penciled by A. M. Sobieralski

Soundings in fathoms feet

Plane of reference M. L. H. W. Ford Arm

Subdivision of wire dragged areas by A. P. Ratti

Inked by J. D. Torrey

Verified by J. D. Torrey and F. M. Gilbert (Wire Drag)

Instructions dated Feb. 4, 1925

Remarks: _____
