

3686, 3687, 3688^a
3789, 3793^a, 3810^a

Diag. Cht. No. 8102-2

3686^a, 3687^a, 3688^a, 3789^a, 3793^a, 3810^a

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

State: Alaska

DESCRIPTIVE REPORT

Topographic	Hydrographic	Additional Work Sheets Nos	3686 ^a , 3687 ^a , 3688 ^a
			3789 ^a , 3793 ^a , 3810 ^a

WIRE DRAG LOCALITY

Clarence Strait

Tongass Narrows and
Revillagigedo Channel

1926

CHIEF OF PARTY
F.B.T. Siems

C. & G. SURVEY
L. & A.
NOV 26 1926
Acc. No.

WIRE DRAG

DESCRIPTIVE REPORT

TONGASS NARROWS, REVILLAGIGEDO CHANNEL,

and

CLARENCE STRAITS.

- o -

DESCRIPTIVE REPORT

Wire Drag

TONGASS NARROWS, REVILLAGIGEDO CHANNEL, and CLARENCE STRAITS.

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EXTENT: These sheets cover all the splits in Tongass Narrows, Revillagigedo Channel, and Clarence Straits as requested in instructions of 1925.

METHODS OF SURVEY: Standard wire drag equipment was used in making this survey. Wooden toggles were used.

As there were no signals available, lights and prominent tangents were used for fixes. This was sufficiently accurate in most cases since large overlaps have been provided. In the absence of a drag test a correction of one foot was applied. In exposed places correction was made for swell.

The work in Tongass Narrows, in the narrow channels using the control mentioned is not considered satisfactory. It is recommended that additional work be performed as will be suggested in reviewing this work and that the same be performed on a regular projection and that signals located in the usual manner be used for control.

PLOTTING AND RECORDS: All of this work was plotted on tracing paper. Where a shoal was covered several times each drag strip was plotted on a separate tracing to avoid confusion. Latitude and longitude intersections were marked on each tracing so that each one can be oriented on the chart. In some cases the lights were marked on the tracings also.

The End Launch positions were copied in the Guide Launch records. Each End Launch position is marked by brackets in red. The Tender records was also copied in the Guide Launch record and a smooth copy of wire drag soundings was made.

Grounds recorded are prominently marked with a red "G" enclosed in a red circle.

RESULTS OF THE SURVEY: There were no dangers to navigation in any of the splits covered. The shoals dragged up against do not extend out enough to prevent free passage of ships.

Great care was taken to tack the tracing paper to the chart so that no movement took place during the plotting and the points were plotted accurately so that the work is practically the same as if it were plotted on the chart itself as called for by the instructions. The tracing paper was used in order to separate the overlapping drags so that the numerous lines would not cause confusion. The intersections of latitudes and longitudes close to the work were marked so that any distortion of the tracings will have little effect on the work.

approved: *F. B. Williams*
Chief of Party.
LIST OF GROUNDS

1. Position 6A Ground occurred on shoal off Pennock Island not passed over later as shoal is a ledge extending off Pennock Island. *(Known shoal)* ✓
2. Position 12A Same as position 6A. ✓
3. Position 7B Grounded on four fathom spot off Channel Island Light. Not passed over with a shoaler drag. N.P. ✓
4. Position 13B Grounded on five and one half fathom shoal. Not passed over with a shoaler drag. N.P. ✓
5. Position 15B Same as Position 13B ✓
6. Position 19B Grounded on six fathom spot west of Channel Island. Passed over with depth of 35 feet. ✓
7. Position 21B Same as Position 13B and 15B ✓
8. Position 24B Grounded on shoal off Channel Island Light. Not passed over. N.P. ✓
9. Position 20C Touched bottom on six and three quarter fathoms spot, north of red bouy with an effective depth of 38 feet. *does not plot on 6 3/4 fath* ✓
10. Position 22C Temporarily aground near five and one half fathom spot close in shore. Effective depth 38 feet. N.P. ✓
11. Position 24C Ground on four and three quarter fathoms spot. Passed over later with an effective depth of 27 feet. ✓

12. Position, between 9D and 10D Ground on five fathom spot, effective depth of 29 feet. Passed over later with an effective depth of 28 feet. NP
3687
13. Position 17D Ground near black bouy on shoal, effective depth 23 feet. Not passed over. N.P.
14. Position 31D Ground same as position 17D, effective depth of 27 feet. N.P.
15. Position 36D "F" bouy temporarily aground near five and one half fathom spot close in shore, effective depth 27 feet. N.P.
16. Position 50D Aground on four and three quarter fathom spot, effective depth 29 feet. Passed over with an effective depth of 27 feet. NP
17. Position 11F Aground on known shoal, effective depth of 43 feet. Previously passed over by 28 feet effective. N.P.
18. Position 23F Aground on five fathoms spot, effective depth of 39 feet. Previously passed over with an effective depth of 28 feet. NP
19. Position 27F Aground on 10 fathom spot. Effective depth 41 feet. Passed over later with an effective depth of 28 feet. NP
20. Position 20J Aground 600 meters south of 8 fathom shoal, effective depth 99 feet. Previously dragged effective depth not known. (did not show)

STATISTICS.

DATE	LETTER	VOL.	LENGTH OF DRAG	NO. G.L.	POS. E.L.	MILES STATUTE.	SDGS.
April 7	A	I	1600	15	22	1.0	0
9	B	I	1200	25	29	0.7	1
10	C	I	1400	45	43	3.0	0
14	D	I	1200	52	54	2.0	0
15	E	II	7000	38	42	8.0	0
16	F	II	800	38	37	1.5	0
22	G	II	3600	24	35	4.8	0
23	H	II	5500 3200 3600	31	33	6.2	0
26	J	III	3600	20	31	4.5	0
27	K	III	4800	26	30	5.6	0
28	L	III	4000	8	8	2.5	0
29	M	III	6000	21	24	6.0	0
30	N	III	4000	20	20	3.8	0
May 1	P	III	4000	10	11	1.6	0

July 1, 1927.

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Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 3686 add'l.

Locality: S. M. ALASKA, TONGASS NARROWS

Chief of Party: F.B.P. Sims, 1926.

Plane of reference is M L L W
6.5 ft. on tide staff at Ketohikan

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.

July 1, 1927.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
volumes of sounding records for

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HYDROGRAPHIC SHEET

5687 add'l

Locality:

S. E. ALAKA, TONGAREU NARROWS

Chief of Party:

Plane of reference is **F.B.T. Siana, 1926**
ft. on tide staff **at L L W**

6.3

Ketchikan.

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.

Section of Field Records

Report on Wire Drag Sheets No 3686^a, 3687^a, 3688^a, 3789^a, 3793^a + 3810^a

Surveyed in 1926

Instructions dated Sept 14, 1925 (Explorer)

Chief of Party F. B. J. Siems

Surveyed by F. B. J. Siems, R. D. Horne

Protracted and plotted by - G. R. Shelton

Verified and inked by P. L. Johnston

This work consists of drag strips run to cover splits and spots in the previous work where the drag depths were insufficient, in Tongass Narrows, Revillagigedo Channel and Clarence Straits.

It was found to be impractical to plot this work on the original wire drag sheets. It was therefore plotted on the various charts on which the work falls.

These copies of the chart on which the work is plotted were made "a" sheets.

The original A. and D. tracings were revised to include this work, but owing to the character of the control on this work, the original depths on the A. and D. tracings were not taken out, except in places where the tinted areas on the charts were affected.

The control on these sheets consists of fixes taken entirely on natural objects, such as lights, beacons and prominent tangents. This is sufficiently accurate for covering the numerous small splits on which the overlap is very large, but for the work in the narrow channels in Tongass Narrows, it is unsatisfactory and too indefinite. The chief of party recommends that further work be done in this locality, using the usual methods of control.

Grounds - Most of the grounds given in the list of grounds are no shoaler than the charted depths and were not plotted. There is one ground in Tongass Narrows, H. 3687^a, between pos. 9D and pos. 10D, where the drag grounded at a depth of 29 ft. and later passed over with a depth of 28 ft. This plots very close to an actual sounding of 30 ft on the previous survey, which was accurately located. This ground was therefore not plotted. There is another ground at pos. 20c, H. 3687^a, where the drag is supposed to have touched bottom at buoy No 5, at a depth of 38 feet. The list of grounds, states that this occurred at the charted $6\frac{3}{4}$ fathom spot, north of the red buoy, but the position of buoy No 5, does not plot near this point. The location is considered to be too indefinite to warrant plotting this ground.

The depth and extent of dragging satisfies the specific instructions, with the exception of the strip from pos. 30 F to pos. 39 F, in the channel between Gravina Island and Pennock Island. The effective depth of this line is 28 feet, which is not deep enough to meet the requirements of the note on the chart.

The drag work was plotted by the field party on separate strips of tracing paper. These were verified and transferred to the charts and have now been filed as boatsheets. The field plotting was well done.

R. L. Johnston