

4627

Form 504

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: S. E. ALASKA

11-5613

DESCRIPTIVE REPORT.

Wire Drag and Field Letter G  
Hydrographic Sheet No. 4627

LOCALITY:

Chatham Strait  
~~RED BLUFF BAY~~

Red Bluff Bay  
~~CHATHAM STRAIT~~

191<sup>6</sup>

CHIEF OF PARTY:

F. B. T. Siems Comdg. EXPLORER

4627

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## DESCRIPTIVE REPORT

to accompany

### Hydrographic-Wire Drag Sheet "G"

**EXTENT:** The wire drag survey, extending from the entrance of Red Bluff Bay, covers passages and channels to the Saltery and to the anchorage at about the middle part of Red Bluff Bay. The hydrography covers the entire bay and entrance.

**METHODS:** In the narrow channels short drags of 100 ft. sections without toggles were used; otherwise, the usual equipment and practice were employed.

**PLOTTING:** Wire drag work and hydrography were plotted separately on sections of the same sheet. The hydrography of the narrow channels was plotted on an enlargement or insert, scale 1:5000. For greater accuracy the positions of the signals on this insert were located from sextant angles based on several triangulation positions; these locations closely checked the topographic locations of the signal transferred from the 1:10,000 sheet, some of which were also used on the insert.

The wire drag work in the narrow channels was plotted on three tracings, I, II and III, after the positions of signals and shoreline had been traced from the 1:5000 insert of that area. The wire drag work contained on each tracing is indicated in the legends. A drag depth tracing combining the work on the three tracings also accompanies the sheet. Position's numbers and letters mark the position of the Guide launch, but pencil lines representing the toelines are drawn to corresponding N buoy positions on the tracings.

#### LIST OF GROUNDS AND MANEUVERS

No. 1. 9 A - F aground pos. 1 a, depth 40 ft. G. L. swung its end around with 1 a as a pivot until aground at point of shoal off @ Peer at pos. 2 a and at buoy #3, 3 a, with depths respectively of 35 and 40 feet. G. L. then reversed at 11 A and returned over same area until abreast of 1 a when the E. L. reversed and both launches proceeded with clear drag in a NW direction from 15 A. N was touching bottom between pos. 14 and 15-A, over known shoal area. See hydrographic sheet and the path of N is not definite for that reason it is shown dotted. A definite limit of drag area of about the same depth near the doubtful path is determined by 49 to 50 A and the area itself is also subsequently covered by less depth drag. (tracing I)

No. 2. 18 A - F touched at 4-a, 5-a and 6-a, depths 41, 42 and 42 feet, then cleared and dragging was continued. (Tracing I)

No. 3. 33 A - N touching at 9-a and 10-a depth 42 feet later covered by 36 feet. (Tracing II)

No. 4. 40 A - F aground at 11-a depth 42 ft. remainder of drag aground in several places 12 a to 15 a off @ Rat. 33 feet obtained near pos. 12 a (Tracing II) Both launches reversed at 41 A cleared and pro-

proceeded toward point of shoal off @ Peer, grounding in the same places as No. 1 at 1 a, 2 a, 3 a, etc. with about the same depth of drag-at 48 A (Tracing I)

No. 4. 49 A Launches reversed but drag did not come clear from shoal @ Peer of 48 A. At 51 A the drag was lifted at #3 buoy. No split was occasioned, as #3 buoy was in territory which had just been covered, so that it may be assumed that the line continues at 51 A onward, as far as N, #1 and #2 are concerned where new area was covered, there being no toggles to cause lift while waiting. (Tracings I and III) After clearing drag at #3 on shoal off @ Peer, the G L carried its end N, #1, back somewhat to pos. 53 A; then resumed progress in a SE direction to 57 A. (Tracing III) ~~R~~ bumping at 54 A depth 42 feet, pos. 16 a. (Tracing III). <sup>N</sup>

No. 5. 58 A Line begins with shape of drag plotted as shown on Tracing I, and launches proceeded southeastward, F bumping at 18 a - 44 ft. depth, finally F is aground at 19 $\frac{1}{2}$  a, 7 fms. unreduced, and N at 19 a, depth 44 ft., with an indefinite drag shape dotted on Tracing I. Drag was then taken up.

No. 6. 83 A. Positions taken at various places where drag is aground 20 a to 25 a, soundings of 42 ft. and drag depths of 43 feet are plotted. (Tracing II).

No. 7. 7 B. Position taken at various places where drag is aground 1b, 2b, 3b, and 6b. Sounding of 31 ft. and drag depths of 32 ft. plotted (Tracing II).

No. 8. 14 B. Positions taken where drag is aground, 7b & 8 b, 25 and 28 ft. soundings. (Tracing II).

No. 9. 9-21 B. Positions taken where drag is aground 10 and 11 b. 29 and 31 ft. soundings. (Tracing II).

No. 10. 23 B. Drag stretched in a straight line along axis of channel, then proceeded slowly to northward against shoal off @ Rat. 12 b - 28 feet. (Tracing III).

No. 11. 37 B. Drag aground after making maneuver as in No. 10, pos. 13 b and 14 b - 27 feet (Tracing III).

No. 12. 39 B. Drag aground at #3 see pos. 15 b 41 feet (Tracing III).

No. 13. 40 B. Drag aground at #4 buoy, 41 feet, pos. 16 b. (Tracing III)

No. 14. 43 B. Position taken at various places where drag is aground 17 b, 18 b, and 19 b; 40 and 41 ft. (Tracing III).

No. 15. 47 B Positions taken at various places where drag is aground in coming up against point of shoal off @ Peer 20 b, 21 b and 22 b, 28, 28, and 23 feet respectively. (Tracing III).

No. 17. 51 B. Positions taken at various places where aground, re-  
 sulting maneuver No. 15 with shoaler depth drag. Pos. 22 b, 23 b and 24 b, 19  
 (Tracing III).

No. 17. 11 C. F aground, 40 feet, pos. 1 c Near Gap (Main Sheet). ✓

No. 18. 24 C. Drag aground in various places, positions taken, depths  
 of 42 ft. pos. 2 to 6 c. (Main Sheet). ✓

No. 19. Drag brought aground near Saltery dock at various places -  
 positions obtained depths 44 ft., pos. 8, 10 and 11 c. (Main Sheet). ✓

No. 20. 53 C. Drag brought up against island at entrance to Red  
 Bluff Bay - positions obtained 12 to 16 c depths 44 feet. (Main Sheet) ✓

No. 21. 7 D Drag brought up against Saltery and reef <sup>(Bea)</sup> nearby - positions  
 taken of places where drag was aground. Sounding of 27 ft. obtained at 5 d.  
 Drag depths at 2 and 3 d. (Main Sheet). ✓

No. 22. 15 D Drag aground at F - 6 d, 42 feet, other end of drag  
 carried around with F as pivot eventually grounding at #5 buoy with 40 ft.  
 drag position 7 d. (Tracing II) Path of N between 21 and 22 D dotted where  
 it grounded and cleared near previous grounds of 42 feet at 13 a, 14 a and  
 15 a. (Tracing II). ✓

No. 23. 9 E Drag aground in various places 1 e, 2 e and 3 e where  
 soundings of 37, 37 and 38 feet were obtained; close to shore (Tracing II). ✓

No. 24. 9 F Length of drag brought up against edge of channel from  
 midchannel position grounded at N and #4 buoy - depth 34 feet - pos. 1 f and  
 2 f. ✓

No. 25. 16 F. Length of drag brought up against shoal inshore area  
 off ) Un where it grounded at #4, #5 and F buoys - pos. 3 f, 4 f and 5 f,  
 depths 33 feet, 35 feet and 33 feet respectively. ✓

DANGERS: A 23 ft. sounding (22 b - wire drag) is at point of shoal  
 extending from the southeast point of the last channel island. Point is  
 marked by  $\odot$  Peer. The point of shoal is 90 yds. SBE from the point. Depths ✓  
 of 1-5/6 fms. rky. (113 c - 114 c - hydrography) and 3/4 fms. rky. (2 c - hy-  
 drography) were found 60 and 50 yds. respectively from the point in the same  
 direction. (1:5000 insert).

A 2-5/6 fms. sounding (33 c hydrography) and a 1-5/6 fms.  
 (14 g hydrography) were found 20 yds offshore in the locality of  $\Delta$  Help. ✓  
 (1:5000 insert).

Low water line extends twenty yds. offshore in the locality  
 of  $\odot$  Un and the five fathom curve parallels the beach about 40 yds. dis- ✓  
 tant. The five fathom curve on the opposite shore in the locality of  $\odot$   
 Rat is more than 50 yds. from the beach at  $\odot$  Rat and the area within the  
 five fathom curve is shoal and rocky. (1:5000 insert).

A 27 ft. sounding ( 5 d wire drag) was obtained 40 yds. ✓

off 0 Bea which is the beacon that marks the ledge southwestward of the Saltery wharf (Main Sheet).

COAST PILOT NOTES: for Red Bluff Bay, have previously been submitted.



F. B. T. Siems,  
Chief of Party.

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

June 19, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4627  
Hydrography and Wire Drag of Red Bluff Bay, Alaska  
Surveyed in 1926  
Instructions dated March 25, 1926 (EXPLORER)

Chief of Party, F. B. T. Siems.

Surveyed by F. B. T. S. and W. Weidlich.

Protracted by F. B. T. S. and G. R. Shelton.

Soundings plotted (hyd.) by G. R. S. and G. A. Nelson

Verified and inked by R. C. Johnson (1:10,000); G. Risegari, (1:5000).

Wire Drag verified and Area and Depth Sheet prepared by A. L. Shalowitz.

1. The records conform to the requirements of the General Instructions with the exception that in the plotting of the work on the enlargement the day letters were shown in red instead of in blue to conform to the sounding records.
2. The plan and character of development conform to the General Instructions.
3. The plan and extent of development satisfy the specific instructions with the exception that in the area to the northeast of  $\triangle$  Tip where the main sheet joins the sub-sketch a few more sounding lines should have been taken to fully develop this area. However, this area has been covered by the wire drag.
4. The sounding line crossings are adequate.
5. The usual depth curves could be drawn, except some close inshore.
6. The usual field plotting was done by the field party and was very good except that time intervals were not always adhered to.
7. The drag work conforms to the requirements of the specific instructions, as well as the General Instructions for drag work. A safe channel was dragged from seaward to well above the vicinity of the dock.
8. All shoals found with the drag, except those close to shore, were dragged over as close to the bottom as it was practicable to do. In the main channel (see sub-sketch) in lat.  $56^{\circ} 50' 30''$  120 m.,

long. 134° 43' 17 m. a 19 foot drag grounded. The least depth obtained here was 23 feet. A 19 foot grounding is shown here. It lies about 15 meters south of a 16 foot sounding obtained on the hydrographic sheet and probably marks the outer end of the shoal making out from the island. This spot was not subsequently dragged over. Considering the close hydrographic development this would seem unnecessary.

9. There are no adjacent contemporary surveys.

A comparison with the old survey H. 2336 (surveyed in 1897) shows a general good agreement. Some differences are noted which cannot be accounted for. For the guidance of the cartographer in such cases the following working rule is recommended:

In all cases of conflict between the new survey and the old survey, the new survey should be used, except where the old survey shows the existence of important rocks or shoals which were not covered by the drag to a depth sufficient to disprove their existence. In such cases the old soundings should be retained.

In connection with the old survey attention is called to the fact that two soundings charted from that survey fall among much deeper soundings on the new survey. The first is an 8 1/2 fathom sounding in lat. 56° 50' 1526 m., long. 134° 43' 55 m. This falls in depths of 47 and 48 fathoms on the new survey and was covered by a 43 foot drag. An examination of the old survey disclosed an erroneous plotting of the position (3 e) <sup>on</sup> which this sounding was based. A replotting throws this sounding about 150 meters further inshore, in perfect agreement with the depths on the new survey. The old sheet has been corrected and all the soundings affected are indicated in red thereon.

A similar condition existed with reference to the charted 19 fathom sounding about 200 meters to the westward of the northwest corner of the westernmost of the islands in the entrance to Red Bluff Bay. This falls in depths of 60 fathoms on the new survey due to a disregard of the recorded time interval. The correct plotting is indicated in red on the old survey.

In the narrows leading to the head of the bay the old survey shows a number of soundings shoaler than that shown on the new survey. Owing to the sparse development here it is recommended that the old soundings be retained.

10. The drag work on the 1:5000 scale was plotted by the field party on three tracings, owing to the great complexity of the work. These tracings were all verified and a common Area and Depth sheet prepared for all this work. These tracings take the place of the customary smooth sheet.

Owing to the large number of soundings and groundings, none of these have been transferred to the hydrographic sheet as usually done. Reference should be made to the Area and Depth Sheet or the wire drag work for this information.

For the work on the 1:5,000 scale, a separate sub-sketch was prepared showing all the wire drag soundings and groundings obtained in this area. These depths are shown in feet at mean lower low water.

11. No additional work appears necessary within the limits of this survey.
12. It is desired to call special attention to the field plotting of the drag work on the 1:5000 scale. Although very detailed, practically no errors were found, which fact greatly simplified and facilitated the verification of an otherwise extremely difficult piece of work.
13. There is no verification report for the drag work on this sheet, the substance having been incorporated in this review.
14. Character and scope of field operations - excellent.  
Field drafting - excellent.
15. Reviewed by A. L. Shalowitz, May, 1928.

Approved:

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Chief, Section of Field Records (Charts)

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

April 29, 1927.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
volumes of sounding records for

HYDROGRAPHIC SHEET 4627

Locality: S. E. ALASKA

Chief of Party: F. B. T. Siems  
Plane of reference is M L L W  
6.7 ft. on tide staff at Red Bluff

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.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY  
L. & A.  
APR 14 1927  
Acc. No.

REG. NO. 4627

HYDROGRAPHIC TITLE SHEET

WIRE DRAG and HYDROGRAPHY

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. letter "G"

REGISTER NO. **4627**

State S. E. ALASKA

General locality West Coast Chatham Strait

Locality RED BLUFF BAY

1:10,000

Scale 1:5,000 Date of survey June-<sup>11</sup>October<sup>7</sup>, 1926.

Vessel Str. EXPLORER launches.

Chief of Party F. B. T. Siems

Surveyed by F. B. T. Siems, and W. Weidlich

Protracted by F. B. T. S., G. R. S.

Soundings penciled by G. R. S. and G. A. N.

Soundings in fathoms and feet Hydrography: Fathoms

Wire Drag : Feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by F. B. T. S. & G. R. S.

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated March 9, 1926, 1926

Remarks: Three tracings of Wire Drag work plotted thereon

One Wire Drag Depth Tracing and One Tracing of SOUNDINGS

(Five in all) accompany the sheet