



3895

Diag. Cht. No. 6102-1

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

State: *Washington*

11-5613

DESCRIPTIVE REPORT.

Hydrographic No. *3895*

LOCALITY:

Satoosh Island
southwestward

191

CHIEF OF PARTY:

R. S. Patton

CRS

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEET ³⁸⁹⁵ (B), - SURVEYS OFF TATOOSH ISLAND
WASHINGTON.

The object of this survey was to verify the existence of a breaker reported to lie about one and one half miles southwestward of Tatoosh Island.

The method followed in this work was to cover the doubtful area by a system of lines run towing a kite until the shoal was located. The spot was then examined with a hand lead, a drag was run over it, and finally an area of about two and one half square miles, having the discovered shoal in the center, was covered by a regular system of sounding lines.

In the sentry work, the kite was towed by means of the sounding wire. Lacking the depth scale found on the James Submarine Sentry reel, the depth at which the kite was towed could not be ascertained in the field. The amount of wire out was measured however (15 fathoms, later increased to 20 fathoms) and from this the depth of the kite may be determined.

A description of the drag used will be found in the Sounding Record. This drag was a makeshifty improvised from such materials as were available, and although crude, it served its purpose very well.

The drag was first set at a depth of 45 feet.

At this depth it caught on the rock, but a careful search with the hand lead failed to reveal any depth less than eight fathoms. It may be that less depths exist, but on the other hand it seems quite probable that the wire, which was unsupported by toggles, might have sagged the three feet necessary for it to have caught. There was also about a twelve foot swell running at the time which may have been responsible for the wire fouling. The search for less water was very carefully and thoroughly made. The wire was overhauled to the point where it had fouled, and the spot examined minutely but nothing less than the eight fathoms could be found. The drag was then set at thirty nine feet and again towed over the rock, this time clearing it.

Having completed this work in the immediate vicinity of the rock, the area adjacent to it was sounded to ascertain whether any further evidence of shoaling might be found.

Work was then taken up in the pass between Duncan Rock and Tatoosh Island. In this work some information as to currents, which may be of value, was obtained by allowing the launch to drift through the pass a number of times - a current having a velocity of 2.6 knots being thus determined. Heavy tide rips were encountered; in some places so severe that it was unsafe for the launch to enter them. The worst rips were in the vicinity of the shoal area southeastward of the rock, which accounts for the fact that this area was not given as close a development as were the other parts of the passage.

The work was carried as close to the reefs as was safe and there broken off.

Four objects were used as signals for this work in addition to those furnished by the office. \odot Lean was plotted by inspection, being the highest point of a rock about 100 meters in extent. The mooring buoy at Tatoosh Island was used a few times, its position being determined on the same tide.

\odot White was located by a cut from the Lighthouse and a resection at \odot White; the angles being recorded in the sounding record. The determined position of this signal does not fit the topography; it being situated on the western end of the largest rock which the sheet shows just east northeastward of it.

\odot Last was determined by three cuts from the Launch. This location also does not fit the topography; the station being on the northwestern part of the large rock southeastward of the plotted position.

The following are the statistics of the work:

Date 1916	Day	Number of : Soundings	Angles	Miles	Vessel.
June 7	A	126	166	10 $\frac{1}{2}$	Manila
June 10	B	Wire Drag Work			
June 12	C	143	296	18 $\frac{1}{2}$	"
June 13	D	78	156	7 $\frac{1}{2}$	"
June 14	E	<u>152</u>	<u>306</u>	<u>15</u>	"
Totals		504	924	51 $\frac{1}{4}$	

Respectfully Submitted,

R. S. Miller

Chief of Party, C. & G. S.

LIST OF HYDROGRAPHIC SIGNALS

CAPE FLATTERY, WASH.

Name	Latitude			Longitude.		
Last	48°	23'	1118	124°	44'	807
White	48	23	919	124	41	841
Fuca	48	22	1212	124	43	1068
Twin	48	22	420	124	43	980
Lean	48	21	1155	124	43	821
Buoy	48	23	1358	124	43	1090

STATISTICS. Sheet No. 3895

Cape Flattery, Washington.

Date	1916	Day Letter	Vol	Positions	Soundings	Miles Statute	Vessel.
June	7	A	1	83	126	10 $\frac{1}{2}$	Lch. Manila
June	10	B	1	Wire Drag	Work.		
June	12	C	1	148	148	18 $\frac{1}{4}$	Lch. Manila
June	13	D	1	78	78	7 $\frac{1}{2}$	" "
June	14	E	1	153	152	15	" "
Totals.				462	504	51 $\frac{1}{4}$	

VEC
Nov. 4, 1916

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HYDROGRAPHIC SHEET 3895.

Vicinity of Cape Flattery, Washington, by Assistant
R. S. Patton in 1916.

TIDES

	Neah Bay
Mean lower low water, or plane of reference on staff	Feet. 4.6
Mean range of tide	5.8

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Place with descriptive report
of hydrographic sheet No. 3895

GPX

Drawing Section.

NOV 11 1916

Hyd. Sheet No 3895

The object of this work, to locate and examine the rock about one and one half miles south west of Tatoosh Is., seems to have been accomplished.

It was not considered necessary to plot the few lines run by sentry and wire drag on a separate sheet, as they were run solely to locate the rock which was afterward examined with the hand lead.

R. L. Johnston

Soundings shown in fathoms.

Protracted and plotted by field party.
Verified and inked by R. L. J.