

6768

6768

Form 504		
U. S. COAST AND GEODETIC SURVEY		
DEPARTMENT OF COMMERCE		
DESCRIPTIVE REPORT		
Type of Survey	Hydrographic	
Field No.	2242	Office No. H-6768
LOCALITY		
State	Alaska	
General locality	Alaska Peninsula	
Locality	South of Dolgoi Island	
1942		
CHIEF OF PARTY		
G. C. Mattison	R. D. Horne	F. B. Roberts
EXPLORER	SURVEYOR	E. LESTER JONES
LIBRARY & ARCHIVES		
DATE	APR 25 1943	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6768

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. **2242**

H6768

REGISTER NO. **H-6768**

State **ALASKA**

General locality **Alaska Peninsula**

Locality **South of Delgoi Is.**

Scale **1:20,000** Date of survey **Aug. 4 - Oct. 23, 1942**

Vessel **EXPLORER** SURVEYOR **E. LESTER JONES**

Chief of Party **G. C. Mattison** **E. D. Horns** **E. R. Roberts**

Surveyed by **Officers of the EXPLORER, SURVEYOR, E. LESTER JONES**

Protracted by **P. M. Fisher**

Soundings penciled by **P. M. Fisher**

Soundings in fathoms ~~feet~~ **Fathoms**

Plane of reference **MLW**

Subdivision of wire dragged areas by

Inked by **R. H. Carstens**

Verified by **R. H. Carstens**

Project 4219

Instructions dated **3/16/38, 4/6/39, 2/6/40, & 6/22/42, 19**

Remarks: **Smooth Sheet and Plotting by the**

Seattle Processing Office.

DESCRIPTIVE REPORT

to accompany
Hydrographic Sheet No. 2242

H6768

Ship SURVEYOR

Roland D. Horne, Chief of Party

DATE OF INSTRUCTIONS:

Project 219 3-18-38, ~~4-26-41~~, ~~4-6-39~~, ~~2-6-40~~, ~~6-29-42~~.

SURVEY METHODS:

Standard visual fix hydrography entirely.
Soundings were taken with portable depth recorders Type 808.

DISCREPANCIES:

DANGERS:

CHANNELS:

ANCHORAGES:

COMPARISON WITH PREVIOUS SURVEYS:

WIRE DRAG GROUNDINGS:

No wire dragging was done by the SURVEYOR.

GEOGRAPHIC NAMES:

There are no names appearing upon the sheet
that are not upon the large scale charts of the vicinity.

STATISTICS:

Statistics for sheet, field No. 2242:

Number of positions	4300
Number of soundings	28332
Statute miles of sounding lines	1528.3

Respectfully submitted,

Glenn W. Moore
Glenn W. Moore
Jr. H. & G. Engr.

Approved and forwarded:

Casper M. Duguay
Commanding Officer
U.S.C. & G.S.S. SURVEYOR
Chief of Party.

Proj. 219

General Notes for Descriptive Reports

for Sheets 2142, 2242, 2342, 2542, 2642, 2742, 4142.

These notes were prepared by the EXPLORER's party and transcribed in the Seattle Processing Office. A copy is attached to the descriptive report for each sheet.

.....

The parties of the EXPLORER, the SURVEYOR, and the E. LESTER JONES worked on the hydrographic sheets. Some of the sheets are surveys by one party, others by two parties, and the rest by all the parties.

The temperature and salinity data were meaned so as to get one curve of each, and this was used to compute the corrections to the fathometer soundings. The same table was used by all parties on the various sheets. At the beginning of the season, one serial was taken and the corrections computed so as to enable some of the records to be mailed to the Processing Office as soon as possible. As this serial was in the area of 2142, this correction table was used by all parties for 2142 and 2542. Later, other deeper serials were taken and used in conjunction with the data from the other parties to give a table of corrections for 2242, 2342, 2642, 2742, and 4142. The two tables were very close. The change points in reducers to 1/2 foot were only a few feet apart.

Draft corrections for the EXPLORER were entered from tables prepared from measurements of depth of Dorsey Oscillators as recorded in the log book of the ship, and occasionally in the record. These correction tables were checked and are correct. The corrections are taken to the 1/2 foot. Early in the season, the 20 fathom dial was set to approximate the draft, but as this necessitated recording which dial was used, the initial was set back to the same as 100 fm. dial. Notes in the records show the time that this was done.

There are many soundings entered in the volume in red pencil, which were scaled from the record of the Hughes Depth Recorder. At the beginning, the soundings were scaled from the record by the dry scale and were measured from the fixed index line. Comparison with Dorsey soundings on fixes near this spot gave an additional correction which is shown in the record in red. Later, and noted in the record, a celluloid template was prepared to the same scale as the dry scale of the Hughes, and was used to read the soundings from the record. This template was adjusted by depths from the Dorsey III on the fixes, so as to enable the soundings from the record of the Hughes to be read equivalent to the unreduced Dorsey soundings. In this manner only the regular temperature and salinity corrections of the Dorsey III are to be applied to the soundings from the Hughes record.

Notes on the use of the Recording Fathometers by ships,in addition to the Dorsey III Fathometer.Prepared by the EXPLORER's party, and transcribed in theSeattle Processing Office.

.....

During the past season, this party has been working in an area of extremely rough bottom. Changes in depth of over 20 fathoms in a few seconds' travel time have been common. It is fortunate that the Hughes Depth Recorder was repaired last spring and placed in operating condition. The Dorsey III fathometer, using the visual method of obtaining soundings, was used in the hydrographic survey by the ship, but the Hughes Recorder was operated all the time hydrography was in progress, and fixes were marked on the graph. In this way a comparison could be made between the recorded soundings and the actual graph of the bottom from the Hughes Recorder. As some of the depth changes were so sudden and of over 20 fms., returning immediately to the former depth, the sounding as recorded would naturally have been questionable, and appear as a 20 fm. error in reading the dial. With the graph to examine, all these points could be verified. Without the Hughes graph much development would have been necessary to prove or disprove the formerly questionable soundings.

Further, examination of the graphs and scanning same against the recorded soundings, showed that even with experienced observers on half-hourly watches at the Dorsey III, there were many shoal soundings missed. With the graph there was no doubt as to the depth at any time, and these missed shoals were scanned and entered in the record in red pencil.

N.B.
Done!

From the study of the graph against the visual method of the Dorsey III, it is strongly recommended that recorder type fathometers be installed for hydrography on each ship, especially those ships engaged in survey work in Alaska, or on the west coast of the United States. The Dorsey III could be used to record soundings, but a good recorder should be run at the same time to pick up the shoal soundings not clearly indicated on the Dorsey III.

H6768

As will be noted, the temperature and salinity corrections have been entered to the nearest half-foot below 40 fms., and to the foot over 40 fms. For convenience, the tide and draft corrections were entered to the nearest half-foot.

The launch recorder records are to be reduced by the same temperature and salinity corrections, and the draft corrections (sometimes called Initial Corrections) as entered in the record. These latter corrections were obtained by study of the line made at the beginning of the signal, comparing it with the line made at the bar-checks. Generally, there was no correction indicated, and some records may not state that fact. If there was no initial or draft correction entered in the launch record on any day, the correction was zero, even if there was no note to that fact.

H-6768

SEATTLE PROCESSING OFFICE NOTES

BOATS AND SOUNDING APPARATUS:

The Boats used in the survey were the EXPLORER, EXPLORER's Launches, No's 1 and 2, the E. LESTER JONES, the SURVEYOR, SURVEYOR's Launches, No's 2 and 4.

The EXPLORER recorded soundings from the Dorsey III Fathometer and operated the Hughes instrument at the same time. The Hughes fathogram was compared with the sounding record.

The SURVEYOR used the Dorsey III and the 808 Fathometer.

The other boats used the 808 Fathometer.

CONTROL:

All signals are on the datum of the 1940-41 triangulation; Unalaska, through Westdahl 1901, Senior 1936, and Graham 1940 and 1941.

The triangulation stations are in the Geographic Positions of Graham 194D and 194I. The topographic stations are from T-6893a. (194-)

WIRE DRAG:

A strip was swept with the wire drag, entering the sheet on the west side, south of Sarana Island, and running southeastward across the sheet. See H-6770. (194-)

FATHOGRAM ROLLS:

During the Season, the SURVEYOR used 16 fathogram rolls. The SURVEYOR's party passed frequently from one sheet to another without changing rolls. An index of all the rolls will be forwarded with them to the office. An index sheet attached to this report shows those rolls pertinent to the sheet.

H-6768

At the request of Commander Mattison, a tracing was prepared for this sheet showing the areas where additional development is desirable. It was given to the EXPLORER, together with the boat sheets, shortly before she left for the summer working grounds, in March 1943.

HO 768

DISCREPANCIES:

Differences at crossings have been noted. In considering these, it must be remembered that large differences frequently occur between adjacent soundings in the same line, and no better similarity can be expected at crossings.

Lat. & Long.	Pos. No.	Vessel	Depth fms.	Remarks
54 ⁰ 57:2 161 39.85	174 - 175 D 2 - 3 B	Surveyor Jones	40 - 29 21 - 29	Steep slope. ✓
54 56.85 161 39.8	151 - 152 D 7 - 8 G	Surveyor Surveyor	36 40	<i>irregular bottom</i> Same spot. ✓
54 53.0 161 41.2	157 G* 36 C	Surveyor Jones	22 13	Very close. * Position changed " " crossing OK. ✓
54 57.63 161 39.15	29 - 30 X 146 E	Surveyor Surveyor	45 50	<i>steep slope</i> ✓
54 56.63 161 35.5	4 - 5 A 144 - 145 D	Surveyor Surveyor	67 62	Possible 5 fm. error. ✓ No fathograms for either day. <i>62 mked</i>
54 53.55 161 31.2	71 - 72 G 27 - 28 L	Surveyor Surveyor	38 48	<i>300</i> Close together. <i>steep slope 38' plotted</i> ✓
54 57.6 161 39.7	13 - 14 M 118 - 119 E	Surveyor Surveyor	29 47	Practically same spot ✓ on steep slope. <i>29 plotted</i>
54 57.3 to 57.8 161 42.1	1 - 2 D 283 - 284 H	Explorer Surveyor		<i>Agreement fair on rough bottom - shoaler sdgs plotted</i> Two lines nearly on top of each other, sdgs. do not agree very well. ✓
54 52.5 to 53 161 33.7	15 - 16 J	Explorer		Poor agreement with cross lines on Surveyor's work. <i>Irregular bottom - shoaler sdgs plotted</i> ✓
54 53.13 161 42.16	134 - 135 G 20 - 21 K	Surveyor Explorer	37-39 41	Fixes 20 and 21 K are questionable. <i>Fixes 20-21 replotted - crossing OK.</i>

H8768

Lat. & Long.	Pos.No.	Vessel	Depth	Remarks
54 ⁰ 53:07	90 - 91 C	Surveyor	<u>fms.</u> 26	Fixes 20 and 21 K are questionable. <i>Fixes 20-21 K replotted - crossing OK</i>
161 42.16	20 - 21 K	Explorer	39	
54 53.03	155 - 156 G	Surveyor	24 - 25	Fixes 20 and 21 K are questionable. <i>ditto</i>
161 42.16	20 - 21 K	Explorer	39 - 34	
54 54.5	6 M	Explorer	44	Not plotted. <i>steep slope</i>
161 36.4	18 - 19 P	Surveyor	52	
54 52.67	13 - 14 A	Explorer	37	adjacent. <i>Slight displacement would bring agreement</i>
161 44.37	1 - 2 Q	Explorer	24	
54 53.6	19 - 20 V	Surveyor	39	Not plotted. <i>irregular bottom</i>
161 37.2	6 - 7 R	Explorer	29	
54 57.75	198 - 199 D	Surveyor	47	close together. <i>steep slope 33 plotted</i>
161 41.3	59 - 60 a	Exp. Lch.#1	33	
54 57.7	144 - 145 c	Sur. Lch.#4	20	Not plotted. <i>steep slope</i>
161 45.8	18 - 19 d	" " "	9 5/6	
54 55.08	13 - 14 b	Sur. Lch.#4	7 3/4	Very close together. <i>steep slope</i>
161 47.58	130 - 131 f	" " "	16	
54 55.51	118 - 119 a	Sur. Lch.#2	14	On same spot. "b" day line deeper than surrounding soundings. <i>Slight displacement would bring agreement</i>
161 52.25	51 - 52 b	" " "	20	
54 54.76	13 - 15 B	Surveyor		Several sds. on either side of Pos. 14 B and 163 e do not agree. <i>Weak fixes on pos 13-15 B</i>
161 46.6 to 46.9	162 - 164 e	Sur. Lch.#2		
54 55.7 to 56.	119 - 121 a	Sur. Lch.#2		Sdgs. along this line 1 or 2 fms. deeper than those on cross lines. <i>Pos 120a adjusted - crossing OK.</i>
161 52.2				
54 55.75	146 - 147 a	Sur. Lch.#2	5 1/6	Not plotted. <i>steep slope</i>
161 51.85	88 - 89 d	" " "	14 - 17	

H6768

Lat. & Long.	Pos. No.	Vessel	Depth fms.	Remarks.
54 ⁰ 53.22	163 -164 A	Jones	8 3/4	Same spot. <i>steep slope</i>
161 39.95	14 - 15 G	Jones	17	Not plotted. ✓
54 53.25	3 - 4 A	Jones	26	Not plotted. <i>steep slope</i>
161 39.75	167 -168 A	Jones	16	Same spot. ✓
54 56.52	99 - 100 E	Surveyor	55 fms.	between 29 and 44. Possibly should be 35 fms. No fathogram for this work. ✓
161 34.05				<i>55 omitted</i>

SHOALS AND SHOAL INDICATIONS:

Attention is called to the following soundings. Many of the deeper ones have been remarked, which are in themselves entirely too deep to be a menace to navigation. In consideration of the badly broken bottom, with many pinnacles, shown on the fathograms, they are drawn to your attention because of the possibility of shoaler soundings close by.

Lat. & Long.	Pos. No.	Depth fms.	Remarks
54 ⁰ 52.84	32 - 33 N	24	Possible shoal indication. ✓
161 33.68			
54 52.98	80 - 81 J	20	" " "
161 35.82			
54 52.68	39 - 40 B	15	<i>cleared by 51 foot drag</i>
161 40.36			
54 52.80	32 B	18	} <i>cleared by 51 foot drag</i>
161 41.44			
54 52.80	73 - 74 B	14	
161 41.70			
54 52.70	66 - 67 B	9 1/4	<i>cleared by 50 foot drag</i>
161 42.39			
54 52.57	94 - 95 B	15	<i>cleared by 51 foot drag</i>
161 42.86			
54 52.90	83 - 84 C	12	<i>cleared by 51 foot drag</i>
161 43.95			
54 52.47	54 - 55 E	18	} <i>cleared by 51 foot drag</i>
161 44.50			

H6768

Lat. & Long.		Pos. No.	Depth	Remarks
			fms.	
54° 52.87	161 45.28	65 - 66 K	7 1/4 ✓	
54 52.44	161 45.05	121 - 122 J	1 4/6 ✓	Passed over by U.S. C. & G. S. Str. Surveyor See letter in this report.
54 52.18	161 44.88	66 g	20 ✓	Possible shoal indication. (6769)
54 52.75	161 45.80	20 - ² 31 J	¹³ 15 ✓	Shoal about 140 meters x 350 meters north half cleared by 50 foot drag.
54 52.29	161 47.52	41 - 42 h	9 1/2 ✓	" " "
54 52.45	161 47.70	22 - 23 h	10 3/4 ✓	" " "
54 52.27	161 48.53	39 - 40 h	9 1/4 ✓	" " "
54 52.40	161 48.85	28 h	8 3/4 ✓	" " "
54 52.62	161 48.48	78 - 79 h	6 5/6 ✓	additional development suggested.
54 52.96	161 48.60	147 - 148 G	14 ✓	" " "
54 53.60	161 31.40	10 - 11 N	24 ✓	Possible shoal indication.
54 53.99	161 38.47	43 P	25 ✓	
54 53.33	161 39.78	217 A	9 ✓	
54 53.85	161 39.81	102 - 103 C	9 ✓	Dragged to 48 feet and cleared at that depth.
54 53.20	161 40.02	10 - 11 B	6 1/6 ✓	Cleared by a 32 foot drag.
54 53.80	161 40.82	38 - 39 G	15 ✓	
54 53.07	161 41.16	38 - 39 C	7 1/4 ✓	Cleared by a 39 foot drag.

H6768

Lat. & Long.	Pos. No.	Depth fms.	Remarks
54° 53:20 161 41.50	178 - 179 A	19 ✓	Possible shoal indication. cleared by 41 to 51 foot drag.
54 53:05 161 43:24	143 - 144 B	11 ✓	Additional development suggested. cleared by 50 foot drag.
54 53:35 161 43:01	25 - 26 B	16 ✓	
54 53:13 161 43:82	19 A	18 ✓ <i>cleared by 50 foot drag</i>	<i>lines accepted as satisfactory.</i> Note that other lines close by were rejected by the Chief of Party. Neverthe- less, they do indicate the presence of a ridge of about 18 fms. depth at 152 B and between 172 & 173 B, and between 174 & 175 B. Doubt was expressed as to the accuracy of the positions.
54 53:70 161 45:55	26 - 27 f	12 ✓ <i>cleared by 40 foot drag</i>	Additional development suggested.
54 53:64 161 49:80	113 - 114 f	4 2/6 ✓	
54 54:16 161 30:77	89 - 90 B	16 ✓	Possible shoal indication.
54 54:13 161 32:00	90 - 91 B	25 ✓	
54 54:92 161 35:60	167 - 168 H	25 ✓	" " "
54 54:00 161 37:61	25 - 26 P	23 ✓	" " "
54 54:51 161 38:45	79 B	24 ✓	" " "
54 54:33 161 39:05	262 - 263 H	19 ✓	" " "
54 54:18 161 40:00	243 - 244 H	13 ✓	<i>cleared by 47 foot drag.</i>
54 54:56 161 46:78	181 - 182 e	6 1/6 ✓	<i>covered by u.D. cleared by 33 foot drag</i>
54 54:57 161 46:68			See H-6770 Wire Drag - Sounding of 21 feet with 19 feet recommended for charting. <i>(1942)</i> <i>21 ft. inked cleared by 16 foot drag.</i>
54 54:30 161 48:15	198 - 199 E	7 1/4 ✓	<i>covered by u.D. drag sounding 38 feet. cleared by 32 foot drag. chart 6 1/4 fms.</i>

H6768

Lat. & Long.	Pos. No.	Depth	Remarks
54° 54:28 161 48:60	199 - 200 B	$\frac{\text{fms.}}{13}$	<i>Cleared by 40 foot drag</i>
54 55:60 161 35:33	49 - 50 P	16 ✓	
54 55:18 161 36:25	13 T	23 ✓	Possible shoal indication.
54 55:3 161 35:9		24 ✓	" " "
54 55:32 161 39:55	79 - 80 k	10 $1\frac{1}{2}$	
54 55:28 161 40:36	25 - 26 g	14 ✓	
54 55: ⁶ 46 161 45:63	5 d	7 $1\frac{1}{4}$ ✓	
54 55:54 161 46:46	107 - 108 c	5 $1\frac{1}{2}$ ✓	
54 55:30 161 47:42	119 - 120 f	3 ✓	
54 55:13 161 47:76	55 - 56 a	$\frac{26}{15\frac{1}{8}}$	
54 55:77 161 51:90	72 - 73 l	2 $5\frac{1}{6}$ ✓	
54 55:57 161 52:20	133 - 134 e	8 $3\frac{1}{4}$ ✓	<i>Cleared by 42 foot drag</i>
54 56:62 161 31:60	4 H	24 ✓	Possible shoal indication
⁵⁴ 56:62 ¹⁶¹ 31:60	139 - 140 P	22	
54 56:40 161 33:60	91 AA	23 ✓	" " "
54 56:00 161 35:30	103 - 104 f	15 ✓	Additional development suggested.
⁵⁴ 56:80 ¹⁶¹ 35:47	11 F	22	
54 56:70 161 37:18	78 - 77 74 H	23 34	
54 56:26 161 42:19	12 a	24 ✓	Possible shoal indication. <i>23 fms. also found on this ridge</i>

H6768

Lat. & Long.	Pos. No.	Depth Fms.	Remarks
54 ⁰ 56.101- 161 43.00	108 - 109 a	13 ✓	
54 56.53 161 44.50	41 - 42 c	12 ✓	
54 56.45 161 44.76	80 - 81 d	12 ✓	
54 56.40 161 45.39	47 - 48 e	7 1/2 ✓	
54 56.09 161 47.22	95 - 96 f 99 f	5 2/6 ✓	
54 56.36 161 48.72	6 - 7 f	5 5/6 ✓	
54 56.53 161 48.72	72 - 73 f	8 1/2 ✓	
54 56.74 161 48.52	59 - 60 f	7 ✓	
54 56.69 161 49.34	109 - 110 e 6 - 7 e	7 ✓	
54 56.45 161 50.30 65	121 - 122 c	4 1/2 ✓	
54 56.67 161 50.65 90	75 - 76 e	5 5/6 ✓	
54 56.05 161 51.60	74 l	2 ✓	
54 56.18 161 51.80	85 - 86 e	6 4/6 ✓	
54 56.41 161 51.55	62 - 63 c	3 2/6 ✓	
54 56.17 161 52.20 56.05 52.15	39 - 40 k	7 1/4 ✓	
54 56.56 161 53.59	54 - 55 a	12 ✓ 6 1/2	
54 57.60 161 36.73	109 - 110 E	19 ✓	Possible shoal indication.

H6768

Lat. & Long.	Pos. No.	Depth	Remarks
54° 57.11 161 34.83	16 - 17 K	<u>fms.</u> 17 ⁰ <i>also 16 fm</i>	Possible shoal indication.
54 57.13 161 34.55	16 - 17 K	19 ✓	" " "
54 57.20 161 35.50	2 - 3 A	21 ✓	" " "
54 57.30 161 39.90	163 - 164 E	17 ✓	" " "
54 57.48 161 40.08 ₃₀	^{177-198 D} 176 - 177 a	²² 28	" " "
54 57.55 161 40.50	144 - 145 a	26 ✓	" " "
54 57.53 161 42.31	4 - 5 G	18 ✓	" " "
54 57.90 161 46.65	92 - 93 c	16 ✓	" " "
54 57.60 161 48.19	17 - 18 f	5 1/6 ✓	
54 57.31 161 53.02	n91 - 92 e	7 1/4 ✓	

KELP REPORTED IN DEEP WATER: (by SURVEYOR and SURVEYOR's Launches, No's 2 & 4)

A number of entries in the sounding record report ³⁰²⁴ Kelp in soundings which appear too deep. There may be shoaler water present, or the Kelp may be floating. The positions follow. *These positions were shown on tracing furnished by Bureau and if work had been continued would be examined by Dept Party 2-11*

Lat. & Long.	Pos. No.	Date	Depth	Remarks
54° 55.07 161 49.4	7 - 8 C	Aug. 6	<u>fms.</u> 28 ✓	Even bottom in this area.
54 53.06 161 40.05	85 - 86 C	Aug. 6	26 ✓	Fairly even bottom in immediate vicinity; 6 1/2 fm. shoal 270 m. N.
54 52.88 161 45.5	21 - 22 D	Aug. 7	27 ✓	Record reads "Kelp Ind. Stlks." Even bottom in immediate vicinity, 15 fm. spot 200 m. S.W.
54 56.54 ⁴³ 161 33.8	134 - 135 D	Aug. 7	41 ✓	No indication of shoal less than 23 fms. in vicinity.

H6708

Lat. & Long.		Pos. No.	Date	Depth	Remarks
				fms.	
54° 56.62	142 - 143 D	Aug. 7	28	No indication of shoal less than 26 fms. in vicinity.	
161 34.93					
54 57.02	172 - 173 D	Aug. 7	30	Shoalest sdg. in vicinity. Record said "Floating", but was then crossed out.	
161 39.65					
54 55.58	4 - 5 E	Aug. 8	20	Even bottom in near vicinity. 8 3/4 fm. spot, 225 m. ENE.	
161 52.4					
54 52.64	21 - 22 E	Aug. 8	30	No indication of less than 22 fms. in vicinity.	
161 44.45					
54 52.68	30 - 31 E	Aug. 8	32	Shoalest depth found in vicinity, 25 fms.	
161 36.5					
54 52.48	47 - 48 E	Aug. 8	28	Shoalest depth found in vicinity, 24 fms.	
161 38.8					
54 52.29	73 - 74 E	Aug. 8	29	Shoalest depth in vicinity, 26 fms.	
161 39.0					
54 54.93	12 - 13 G	Aug. 10	52	Shoalest depth found in vicinity 48 fms.	
161 38.7					
54 54.30	14 - 15 G	Aug. 10	50	Shoalest depth found in vicinity 24 fms.	
161 38.4					
54 55.23	139 H	Aug. 13	43	Shoalest depth found in vicinity 30 fms.	
161 37.4					
54 57.85, 57.95	46a, 46-47a	Aug. 5	17 & 14	No shoal indications near these two spots. <i>shoal 1/4 mile east</i>	
161 52.9					
54 56.58	58 - 59 b	Aug. 6	21	Shoalest depth found in vicinity 20 fms.	
161 52.5					
54 55.83	85 - 86 b	Aug. 6	21	Even bottom. <i>shoal 1/4 mile west</i>	
161 51.6					
54 56.90	109 - 110 c	Aug. 8	18	Even slope <i>shoal 1/4 mile south</i>	
161 50.8					
54 57.08	119 c	Aug. 8	21	Even bottom.	
161 50.65					
54 56.4, 56.45	135 - 136c	Aug. 8	18, 17	Shoal spot to westward 150 m.	
161 50.45					
54 56.81	136 - 137 c	Aug. 8	18	Even bottom. <i>shoal 1/4 mile S.W.</i>	
161 50.45					

H6768

Lat. & Long.	Pos. No.	Date	Depth fms.	Remarks
54° 56.97 161 50.46	137 - 138 c	Aug. 8	19 ✓	Even bottom. Shoal $\frac{1}{4}$ mile SW
54 56.53 161 50.15	164 - 165 c	Aug. 8	18 ✓	Even bottom. Shoal $\frac{3}{8}$ mile SW
54 56.95, 57.05 161 50.17	166 - 167 c	Aug. 8	18, 20 ✓	Even bottom. Shoal $\frac{1}{2}$ mile SW
54 56.50 161 49.98	178 - 179 c	Aug. 8	18	Even bottom. Shoal $\frac{1}{2}$ mile W.
54 56.6 161 49.87	192 - 193 c	Aug. 8	18-17 ✓	Even bottom. ✓
54 57.1 161 49.9	194 - 195 c	Aug. 8	20 ✓	Even bottom. ✓
54 56.60 161 53.85	108 - 109 e	Aug. 10	20 ✓	Even bottom. 12 fm 200m S.E.
54 52.62 161 51.9	97 - 98 h	Aug. 22	19 ✓	No shoal nearby. Shoal 300m E
54 55.40 161 40.04, 40.25	3 g 3-4 g	Sept. 5	37 34 ✓	No indication of shoal near these two spots. 10 fm. Shoal 0.3 mile E

COMPARISON WITH H-6586:

A portion of Sheet H-6586, surveyed in 1940 by Ship DISCOVERER, L.D. Graham, Chief of Party, covers the area of this sheet. A number of the widely spaced lines on the present survey are split by lines on H-6586. The following differences between the two sheets were noted; otherwise, the junction is good:

Lat. & Long.	Sounding H-6586	Sounding H-6768
54° 54.3 161 48.2	28 fms. just west of kelp patch.	Between 15 and 21 fms. steep slope
54 54.22 161 39.9	19 fms.	Between 25, 28, and 31 fms. irregular bottom
54 53.7 161 45.9	16 fms.	Between 20, 24, and 27 fms. 17 fm. nearby on present survey

H6768

JUNCTION WITH H-6769:

The following discrepancies were noted in the junction between H-6768 and H-6769:

Lat. & Long.	H-6768	H-6769	
54° 52.3 161 44.3	23, 26 fms.	28 fms.	<i>irregular bottom</i>
54 52.2 161 44.5	25 fms.	28 fms.	" "
54 52.27 161 43.1	30 fms.	26 fms.	" "
54 52.6 161 39.6	31 fms.	27 fms.	" "
54 52.4 161 38.5	30 - 30 fms.	26 fms.	" "
54 52.3 161 37.05	19 fms.	23-25 fms.	" "
54 52.2 161 36.9	23 fms.	13-19 fms.	" "
54 52.3 161 35.6	52 - 52 fms.	40-49 fms.	<i>line adjusted</i>

COMPARISON WITH SHEET H-6588:

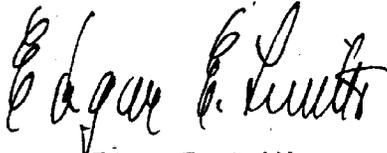
Comparison made with boat sheet, as smooth sheet H-6588 is in Washington Office. Agreement of soundings was found to be good.

H6768

STATISTICS:

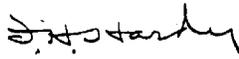
<u>Vessel</u>	<u>Stat. Mi. Line</u>	<u>Soundings</u>	<u>Positions</u>
EXPLORER	323.1	6,285	956
SURVEYOR	164.4	3,155	566
E. LESTER JONES	1,558.8	28,331	4,300
TOTAL:	2,045.3	37,771	5,822

Area Square Statute Miles 103.



Edgar E. Smith
Assoc. Cartographic Engineer
Seattle Processing Office.

Approved and Forwarded:



F. H. Hardy
Officer in Charge,
Seattle Processing Office.

HG768

H-2722

Field Sheet No. 2242

TIDAL GAGE

Type of Tide Gage: Standard No. T-259
Location: King Cove, Alaska.
Observer: Robert E. Gould
Address: King Cove, Alaska

Latitude ----- 65° 03.7

Longitude ----- 162 19.1

Staff reading of MLLW ---- 6.52 feet.

6768

Index of Pathogram Rollsshowing soundings onH-6768

SURVEYOR

<u>Roll No.</u>	<u>Positions</u>
1.	86E - 180E 1F - 48F 1G - 192G 1K - 102K
2.	1H - 284H 1J - 187J
3.	1L - 10L
4.	12L - 62L 1M - 16M 1N - 116N 1P - 69P
5.	1Q - 14 Q
6.	1R - 15R 1U - 39U 1S - 29S 1V - 23V 1T - 32T
7.	1W - 35W 1X - 30X 1Y - 33Y 1Z - 12Z
8.	1AA - 109AA 1BB - 82BB
Launch # 4 11.	1a - 73a 1e - 67e 1b - 19b 1f - 135f 1c - 156c 1g - 40g 1d - 144d
Launch # 2 13.	1a - 176a 1d - 48d 1b - 90b 1e - 205e 1c - 198c
14.	1f - 207f 1 <u>l</u> - 110 <u>l</u> 1g - 132g 1h - 184h 1k - 57k

20
22
70

POST-OFFICE ADDRESS: Seattle Processing Office, 1500 Westlake Ave. N., Seattle, Wash.

TELEGRAPH ADDRESS:

23 EXPRESS ADDRESS:

H-6768

MAY JUN 2 AM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

May 29, 1943

To: The Director,
U. S. Coast and Geodetic Survey

From: Officer in Charge,
Seattle Processing Office

Subject: Addition to the Descriptive Report H-6768.

In the descriptive report forwarded with Hydrographic Sheet No. 6768 no special mention was made of the shoal of 10 1/2 ft. (reduced) found by the SURVEYOR on Pos. 121, J day, in Lat. 54° 52'44" Long. 161° 45'05". This sounding is shown on fathogram roll #2, and the actual depth obtained was 15 ft. It is seen that there were not many inches of water between the SURVEYOR's bottom and the water. By the fathogram it looks as if the SURVEYOR should still be there marking the spot.

Although the record does not show it, Captain Horns told me that the ship was slowed down at about Pos. 120, and the engine stopped about a minute before the shoal was passed over. This is one of the many occasions when a man visually reading the Dorsey Fathometer would miss the top of a shoal which was recorded on the fathogram.

It is requested that a photostat of the fathogram covering the shoal from Pos. 109 to Pos. 122 be forwarded to this office for our files and to show to people interested in surveying.

F. H. Hardy

F. H. Hardy
Officer in Charge,
Seattle Processing Office.

H6768

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6768**

Records accompanying survey:

Rec 8/27/43 - #1,3,4 - of 5 #2 & 5 Rec 9/12/43

Boat sheets *Not in* sounding vols. 25.; wire drag vols. 0....;

bomb vols. 0....; graphic recorder rolls 6. & 8. ^{index} & cahier of ^{Hughes} ..

special reports, etc. *Tracing... Fathometer Report added 8/3/43*

.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	5.822
Number of positions checked	.197.
Number of positions revised	.665.
Number of soundings recorded	37771
Number of soundings revised (refers to depth only)	.38..
Number of soundings erroneously spaced	.10..
Number of signals erroneously plotted or transferred
Topographic details	Time .1.4r
Junctions	Time .17.7r
Verification of soundings from graphic record	Time .44hr

Verification by *R.H. Carstens* Total time ~~2.66~~ ² hr Date *Feb 16, 1944*

Review by *R.H. Carstens* Time .35.4r Date *Feb 23, 1944*

H6768

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		
4		545615
5		4
6		-
7		4
8		4
9	location of tide staff	
10		4
11		4
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. **H6768**

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Alaska</u>												1
<u>Alaska Peninsula</u>												2
<u>Dolgoi Island</u>												3
<u>Sarana Island</u>												4
<u>Rona Islands</u>												5
<u>Hunter Island</u>												6
<u>John Rock</u>												7
<u>Sushilnoi Island</u>												8
<u>King Cove</u>												9
<u>Rosa Island</u>												10
<u>Olga Rock</u>												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names underlined in red approved
by L. Heck on 2/26/44

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
 PHOTOSTAT OF

} No. H **H6768**
 } No. T

{ received April 25, 1943
 registered June, 26, 1943
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
✓ 83	Pg 4 to 11	LBH	
88			
90			

RETURN TO

82	R. W. Knox
----	------------

RAC
HCE

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 29, 1943

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
25 volumes of sounding records for

HYDROGRAPHIC SHEET 6768

Locality South of Dolgoi Island, Alaska Peninsula

Chief of Party: G. C. Mattison & R. D. Horne in 1942

Plane of reference is mean lower low water reading

6.3 ft. on tide staff at King Cove

23.0 ft. below B. M. 2

Height of mean high water above plane of reference is 6.1 feet.

Condition of records satisfactory except as noted below:

E. K. Green

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6768

Field No. 2242

Alaska, Alaska Peninsula, South of Dolgoi Island
Surveyed August - October 1942; Scale 1:20,000
Instructions dated March 18, 1939 and April 26, 1941

Soundings:

Control:

808 Fathometer
Dorsey Fathometer
Hughes Fathometer

Three-point fix on shore signals

Chief of Party - G. C. Mattison; R. D. Horne; E. B. Roberts
Surveyed by - Ship's Officers
Protracted by - P. M. Fisher
Soundings plotted by - P. M. Fisher
Verified and inked by - R. H. Carstens
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, February 23, 1944

1. Signals and Shoreline

The signals and shoreline originate with T-6893 (1942) and with sextant fixes recorded in the sounding records of H-6588 (1940-42). The shoreline of Sarana Island, in pencil, originates with T-4143 (1925).

2. Sounding Line Crossings

Satisfactory. The discrepancies noted in the descriptive report are attributed largely to the steep gradient and the irregular bottom in this area.

3. Submarine Relief

Due to the extreme irregularity of the bottom no specific submarine features are easily distinguishable.

The depth curves were satisfactorily drawn except in a few places mentioned in item 9. Depth curves on H-6586 (1940) have been left incomplete and should be charted from the present survey.

4. Junctions with Contemporary Surveys

Satisfactory junctions were effected with H-6769 (1942) on the south, H-6486 (1939-40) and H-6588 (1940-42) on the west, H-6774 (1942) on the east and H-6586 (1940) overlapping the southwest portion of the present survey. The junction on the north with H-6767 (1942) will be considered in the review of that survey. Unsurveyed areas adjoin the present survey on the southwest.

Present survey depths are in harmony with the effective depths of H-6770 (1942) W.D.

5. Comparison with Prior Surveys

No prior surveys of the area have been made by this bureau.

6. Comparison with Chart 8703 (Latest print date 7-31-43)

a. Hydrography

The charted hydrography within the limits of the present survey originates with blueprint 36700, a compilation of soundings made from various boat sheets of the area. Agreement with the smooth sheet soundings varies within 1-2 fathoms. As a result of verification the 2-fm. sounding charted in Lat. $54^{\circ}53.4'$, Long. $161^{\circ}51.6'$ has been changed to 5 fathoms and the 49 fathoms charted in Lat. $54^{\circ}56.6'$, Long. $161^{\circ}35.5'$ has been rejected. The 21-fm. charted in Lat. $54^{\circ}54.9'$, Long. $161^{\circ}49.1'$ was erroneously inked on the boat sheet as 21 instead of 31. The 19 fathoms charted in Lat. $54^{\circ}52.8'$, Long. $161^{\circ}49.6'$ is actually a "miss" in the sounding records.

The 5-1/2 fm. charted in Lat. $54^{\circ}53.14'$, Long. $161^{\circ}40.0'$ and the 6-3/4 fm. charted in Lat. $54^{\circ}53.08'$, Long. $161^{\circ}41.13'$ from H-6770 (1942) W.D. are arbitrary depths recommended for charting by the field party as mentioned in the Review of H-6770, item 4. These depths should be superseded by present survey depths.

Because of the difference between the boat sheet and smooth sheet depths, the area should be re-compiled from the present smooth sheet.

b. Aids to Navigation

There are no charted aids to navigation within the area of the present survey.

7. Condition of Survey

A slight eccentricity in a protractor used by the processing office necessitated replotting limited portions of the sheet. Correspondence regarding this protractor is attached to the descriptive report of H-6769 (1942).

Field checking of the fathogram rolls of the Ship SURVEYOR failed to include correcting for phase error which in several places, where the phasing head failed to lock properly, was as much as 5 fm. This error was clearly indicated by a displacement in the additional initial on the B phase as well as in the profile of the bottom.

8. Compliance with Instructions for the Project

Satisfactory except that few bottom characteristics were taken.

9. Additional Work Recommended

In a number of cases the shoal indications noted in the descriptive report fall in areas too deep to be a menace to navigation. Additional development would probably reveal shoaler depths, but their importance is considered insufficient to warrant the additional work. On the following shoals, however, additional work would be desirable in completing the depth curves and in revealing the shoalest depth:

- A. 19 fm. in Lat. $54^{\circ}53.20'$, Long. $161^{\circ}41.5'$
- B. $7\frac{1}{4}$ fm. in Lat. $54^{\circ}55.64'$, Long. $161^{\circ}45.63'$
- C. 16 fm. in Lat. $54^{\circ}57.90'$, Long. $161^{\circ}46.65'$
- D. $7\frac{1}{4}$ fm. in Lat. $54^{\circ}57.31'$, Long. $161^{\circ}53.02'$

Split lines are desirable south of Sarana Island between widely spaced lines resulting from the rejection of certain weak fixes in this area.

In the vicinity of Lat. $54^{\circ}52.1'$, Long. $161^{\circ}33.0'$ additional work is desirable in the small holiday between the present survey and H-6774 (1942).

Split lines are desirable over the shoal area on the west side of the rock in Lat. $54^{\circ}57.8'$, Long. $161^{\circ}46.0'$.

10. Recording Fathometers

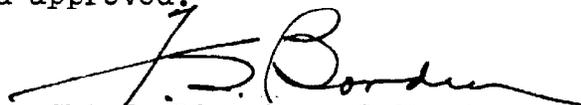
The numerous corrections and additional soundings in color in the sounding records strikingly indicate the value of a graphic record for checking the visual fathometer. In this extremely irregular bottom, changes in depth are so great and so rapid that numerous recorded soundings appear questionable until checked on the graph. Mistakes made in reading and recording large changes in depth can easily be eliminated by checking the graphs. In some cases, depth changes of as much as 10 fathoms, not noted by visual reading, have been added between 15-second soundings. Continued practice of using the recording fathometers to check soundings visually read is certainly recommended in areas of such great irregularity.

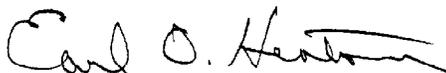
11. Superseded Surveys

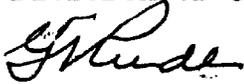
None.

Examined and approved:


Chief, Surveys Branch


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of
Coastal Surveys

applied to chest 8703
" " " 8802
" " " 9302
" " " 8704

Mar. 16, 1944

J.H.S.

" 24, 1944

J.H.S.

Apr. 5, 1944

J.H.S.

July 29, 1944

L.A.M.