

6771

1229

Form 504		
U. S. COAST AND GEODETIC SURVEY		
DEPARTMENT OF COMMERCE		
DESCRIPTIVE REPORT		
Type of Survey	Hydrographic	
Field No.	2542	Office No. H-6771
LOCALITY		
State	ALASKA	
General locality	Pavlof Islands	
	<del>South side of Alaska Peninsula</del>	
Locality	Southeast of Dolgoi Island	
1942		
CHIEF OF PARTY		
G. C. Mattison	B. D. Horn	H. B. Roberts
EXPLORE	SURVEYOR	L. LESTER JONES
LIBRARY & ARCHIVES		
DATE	APR 25 1943	

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

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. 2542

REGISTER NO. H-6771

State Alaska

General locality Pavlof Islands  
S. side of Alaska Peninsula

Locality Southeast of Delgoi Island

Scale 1:20,000 Date of survey August - October, 1942

Vessel EXPLORER SURVEYOR E. LESTER JONES

Chief of Party G. C. Mattison; R. D. Horne; E. B. Roberts

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

Protracted by Christine Necha

Soundings penciled by Christine Necha

Soundings in fathoms ~~xxx~~ Fathoms

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by A. R. STIRNI

Verified by A. R. STIRNI

Instructions dated 5/12/38, 4/6/39, 2/4/40, 4/29/42, 26

Remarks: Smooth Sheet and Plotting by the

Seattle Processing Office.

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 S. LINDEN 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 measured 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 Recorders. 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 unadjusted 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.

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.

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 the  
Seattle 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 such 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.  
7-16  
✓

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.

DESCRIPTIVE REPORT  
HYDROGRAPHIC SHEET FIELD NO. 2542  
MV. E. LESTER JONES 6771

Date of Instructions. March 18, 1938; Supplemental April 6, 1939, ~~May 21, 1942, and June 19, 1942.~~

Survey methods. Hydrography on this sheet was performed by use of the 808 depth recorder. All fathograms have been subsequently inspected, all soundings verified or corrected, additional characteristic soundings added, and changes and additions checked. Reference is made to special notes on interpretation of fathograms accompanying Descriptive Report notes for sheet field No. 2142. H-6767 ✓

The survey is complete within the area covered, except for a small locality in the vicinity of East Rock, and a small area of shoal water at the west edge of the sheet very near South Rock. For additional work done on the area reference is made to launch hydrography performed by party of the ship SURVEYOR, 1942. Area around East Rock covered by Surveyor launch. The work is shown on the smooth sheet. South Rock covered on H-6767 (1942).

Discrepancies. Discrepancies were found in cross lines run by different parties occupied on the project. These, however, were not of serious character, and in smooth plotting will probably disappear. Exceedingly steep slopes and abrupt broken bottom exist in many places. The boat sheets used, owing to conditions prevailing, are not of excellent quality, giving rise to the probability of moderate shifts of position. ✓

Dangers. No dangers exist outside of the visible rocks, East Rock and South Rock, and the shoal areas in their immediate vicinity and between them. The approximately 6-fathom shoal northerly from these rocks, in lat. 55-02.1 to 02.3, long. 161-28.9, has been reasonably well developed, but can readily be given a good berth in navigation. The approximately 17-fathom spot in lat. 54-58.2 long. 161-23.2, is the only other noteworthy feature. This has been developed to a practical certainty that it constitutes no danger. ✓

Channels. None exist. The entire area is navigable with due regard to the features described above. Navigation between the visible rocks mentioned cannot be considered practicable. ✓

Anchorage. None.

Comparison with previous surveys. The only previous survey consists of ~~two or three~~ <sup>one</sup> reconnaissance lines run many years ago with obsolete types of equipment. The discrepancies, all amendable to reasonable adjustment if desired, are disregarded. H-3654 (1913-1914)

Wire Drag. None ✓

Geographic Names. None proposed. ✓

Landmarks. Report should await completion of survey of area. ✓

Coast Pilot. Above information contains everything available. ✓

E B Roberts

6771

HYDROGRAPHIC CONTROL

FIELD SHEET NO 2542

<u>Hydrographic Name</u>	<u>Origin</u>
Med	MEDIAN, 1941
Hig	HIG, 1941
Tan	TANYA, 1941
Est	ESTEN, 1941
Wos	WOS, 1924, 1941
Olga	OLGA, 1941
East	EAST ROCK, 1941
South	SOUTH ROCK, 1941



# 6771

## DESCRIPTIVE REPORT

to accompany  
Hydrographic Sheet No. 2542

Ship SURVEYOR

Roland D. Horne, Chief of Party.

DATE OF ISTRUCTIONS:

3-18-38, 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. 2542:

Number of positions	181
Number of soundings	914
Statute miles of sounding lines	49.9

Respectfully submitted:

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

Approved and forwarded:

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

*Proj. 219*

8  
H-6771

Seattle Processing Office Notes

CONTROL:

All signals are triangulation stations from the work of  
Graham, 1941.

Boats Used:

EXPLORER  
SURVEYOR and Launch # 2  
E. LESTER JONES

Attention is called to the following soundings:

<u>Lat. &amp; Long.</u>	<u>Position #</u>	<u>Least Depth</u>
55° 01.25 161 28.91	49 N	4 fms. ✓
55 01.7 161 28.22	85 - 86 N	6 1/6 fms. ✓✓
55 02.12 161 28.83	31 - 32 E	6 1/2 fms. ✓
55 01.6 161 27.93	68 - 69 N	11 fms. ✓✓
55 01.07 161 26.87	64 - 65 a	11 fms. ✓✓
54 58.23 161 23.15	154 H	17 fms. ✓✓
55 00.49 161 26.42	23 - 24 b	17 fms. ✓✓
55 01.02 161 26.35	31 - 32 b	4 1/2 fms. ✓
55 02.25 161 25.92	122 - 123 L	75 m. from East Rock 17 fms. ✓✓

<u>Lat. &amp; Long.</u>		<u>Position #</u>	<u>Least Depth</u>
55	91.63	171 - 172 E	18 fms. ✓
161	27.35		
-----			
54	59.6	50 - 51 H	28 fms. ✓
161	20.05		
-----			
55	02.6	31- 32 M Green	18 fms. ✓✓
161	25.4		
-----			
54	58.3	65 - 66 F 111 H	25 fms. ✓✓
161	19.4		
-----			
55	01.52	34 - 35 a	13 fms. ✓
161	26.91		
-----			

Differences at Crossings:

<u>Lat. &amp; Long.</u>	<u>Pos. #</u>	<u>Vessel</u>	<u>Remarks</u>
from			
54° 59.95	5 B	SURVEYOR	Poor agreement with cross lines.
161 20.6			
to			
54° 57.95	8 B		Several soundings omitted between 5 and 8 B. Bottom is pretty rugged.
161 20.6			

STATISTICS:    H-6771

Statute Miles Sounding Line ----- 707.3

Number of Soundings ----- 10,782

Number of Positions ----- 1,954

Area sq. stat. miles ----- 52

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

Approved and Forwarded:

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

Index of Fathogram Rolls

showing soundings on

H-6771

	<u>Roll No.</u>	<u>Positions</u>
SURVEYOR	5.	1A - 13A
	6.	1B - 10B
Launch # 2	16.	1a - 75a 1b - 83b

H-6771

TIDAL NOTE

Field Sheet No. 2542

Type of Tide Gage: Standard No. T-259

Location: King Cove, Alaska

Observer: Robert R. Gould

Address: King Cove, Alaska.

Latitude 55° 03.7

Longitude 162 19.1

Staff reading of MLLW 6.32 feet.

Surveys Section (Chart Division)

H6771

HYDROGRAPHIC SURVEY NO. ....

Records accompanying survey:

Rec 8/27/43 - No 1 of 2 #2 Rec 9/12/43

Boat sheets ~~Not In~~ sounding vols. ...<sup>11</sup>; wire drag vols. ...<sup>0</sup>;  
bomb vols. ...<sup>0</sup>...; graphic recorder rolls 3 (7 others filed with H6768)  
special reports, etc. ~~Cahier Hughes Fath. Overlay Tracing~~.....  
.....

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

Number of positions on sheet	.1954
Number of positions checked	..47..
Number of positions revised	..2..
Number of soundings recorded	.10782
Number of soundings revised (refers to depth only)	..35..
Number of soundings erroneously spaced	..62..
Number of signals erroneously plotted or transferred	.....
Topographic details	Time .....
Junctions	Time ..16..
Verification of soundings from graphic record	Time ..16..

Verification by...A.P..S.T./P.N!...Total time ..120. Date Nov. 25, 1943

Review by ...J.A. McCormick..... Time ..9 hrs. Date Nov. 30, 1943.

H6771

	Remarks	Decisions
1		
2		
3	For title	550615
4	" "	" "
5		550610
6		"
7		545610
8		
9		
10		
11	Location of tide staff	
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

# GEOGRAPHIC NAMES

Survey No. **H6771**

GEOGRAPHIC NAMES											
Survey No. H6771											
Name on Survey											
	A	B	C	D	E	F	G	H	K		
Alaska											1
<del>Alaska Peninsula</del>											2
Dolgoi Island											3
Pavlof Islands											4
South Rocks											5
Poperechnoi I											6
Olga Rock											7
											8
											9
											10
King Cove											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 11/7/44

M 234

Names underlined in red approved  
by L. Heck 11/17/44



# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTOSTAT OF

No. H **H6771**  
No. T

{ received June 26, 1943  
registered June 28, 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 8 I.B.O.		
88			
90			

RETURN TO

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

RAC  
SHE

# TIDE NOTE FOR HYDROGRAPHIC SHEET

July 3, 1943.

~~Division of Hydrography and Topography.~~

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

Plane of reference approved in  
11 volumes of sounding records for

HYDROGRAPHIC SHEET 6771

Locality Southeast of Dolgoi Island, South side Alaska Peninsula.

Chief of Party: G. C. Mattison; R. D. Horne and E. B. Roberts 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. H. Green*

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6771

Field No. 2542

Alaska; Pavlof Islands; Southeast of Dolgoi Island  
Surveyed August - October 1942, Scale 1:20,000  
Instructions dated March 18, 1938 and April 6, 1939  
PROJECT H. T. 219

Soundings:

Control:

808 Recorder  
Dorsey Fathometer  
Hughes Recorder

Three-point fix on shore signals

Chief of Party - G. C. Mattison; R. D. Horne; E. B. Roberts  
Surveyed by - Officers of Ships EXPLORER, SURVEYOR and  
E. LESTER JONES

Protracted by - C. Nechaj  
Soundings plotted by - C. Nechaj  
Verified and inked by - A. R. Stirni  
Reviewed by - J. A. McCormick  
Inspected by - H. R. Edmonston, November 30, 1943

1. Shoreline and Signals

Rock detail is from T-6893b (1942). All signals were located by triangulation.

2. Sounding Line Crossings

Agreement at crossings is satisfactory for such uneven bottom.

3. Adjoining Surveys

H-6774 (1942) satisfactorily overlaps the present survey on the south and on the northeast. On the east H-6774 is only partially complete. On the west is H-6767 (1942) which had not been verified at this writing. The area on the north has not yet been surveyed.

4. Previous Surveys

A single line of soundings on H-3654 (1913-14) traverses the area covered by the present survey. Depths on the two surveys agree fairly well but those on H-3654 have no further value except as history.

5. Comparison with Chart 8700 (Print of Oct. 30, 1943)  
Chart 8703 (Print of July 31, 1943)

Depths charted in this area are from B.P. 36700 compiled by the field party from boat sheets of the present and adjoining surveys. The preliminary depths differ from those on the smooth sheet by one to three fathoms. The reviewed survey is basic and supersedes all depths now charted in the surveyed area.

6. Submarine Features

Principal feature of this area is the extreme irregularity of the bottom. This has already been the subject of considerable comment in the descriptive reports and reviews of other surveys in the vicinity.

7. Compliance with Project Instructions

Satisfactory.

8. Additional Field Work Recommended

None.

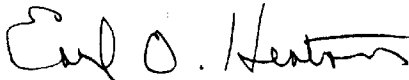
Examined and approved:



Chief, Surveys Branch



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of  
Coastal Surveys

applied to chart	8703	Mar. 1, 1944	J. H. S.
" " "	8700	Mar. 10, 1944	J. H. S.
" " "	8802	Apr. 5, 1944	J. H. S.
" " "	9302	" " "	J. H. S.
" " "	8704	July 29, 1944	J. A. M.