

7872

Diag. Cht. No. 8700

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. LJ-0250 Office No. H-7372

LOCALITY

State ALASKA

General locality Shumagin Islands

Locality Sand Point, Popof Island

194 50

CHIEF OF PARTY

G.A.Nelson

LIBRARY & ARCHIVES

DATE Jan. 31, 1951

7872

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. LJ-0250

REGISTER NO. H-7872 (1950)

State ALASKA ✓

General locality SHUMADIN ISLANDS ✓
(village),

Locality SAND POINT, POPOF ISLAND ✓

Scale 1:1,000 ✓ Date of survey 21-22 August, 1950 ✓

Vessel Ship ESTER JONES

Chief of Party GEORGE A. NELSON ✓

Surveyed by ROSS A. GILMORE ✓

Protracted by ROSS A. GILMORE

Soundings penciled by GEORGE A. NELSON

Soundings in ~~fathoms~~ feet ✓

Plane of reference MLLW ✓

Subdivision of wire dragged areas by none

Inked by C. R. Helmer

Verified by " "

Instructions dated Director's radiogram, 12 August, 1950

Remarks: _____

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H--- (FIELD NO. LJ-0150)^{H-7839(1950)}
and
HYDROGRAPHIC SURVEY H--- (FIELD NO. LJ-0250)^{H-7872(1950)} present survey

Scale 1:1,000 August 1950

George A. Nelson, Chief of Party

Commanding, U. S. C. & G. S. S. IESTER JONES

(Ross A. Gilmore, LCDR, C&GS In charge of Field Work)

A. PROJECT;

Authority for these surveys was contained in the Director's radiogram dated 12 August 1950 and were executed as part of Project CS-319. (See copy of radiogram attached to this report).

B. SURVEY LIMITS AND DATA;

The area surveyed for Field No. LJ-0150 is the immediate dock area around the Alaska Pacific Salmon Co. wharf and its approaches at Sand Point, Popof Strait (northern part), Popof Island, Alaska (Lat. $55^{\circ}19.35'$ N., Long. $160^{\circ}31.00'$ W.).^{H-7839(1950)}

The area surveyed for Field No. LJ-0250 is the immediate dock area around the Aleutian Cold Storage Co. wharfs at Sand Point, Humboldt Harbor, Popof Island, Alaska (Lat. $55^{\circ}20.15'$ N., Long. $160^{\circ}30.05'$ W.).^{H-7872(1950)}

No junctions were attempted with prior surveys on either LJ-0150 or LJ-0250 and these two surveys are not contiguous.^{H-7839}

^{H-7872}

C. VESSEL AND EQUIPMENT;

Both surveys were executed by a 16 foot skiff (loaned by the Aleutian Cold Storage Co.) using a 10 HP outboard motor.

Soundings were taken by fathometer using the 808J type depth recorder No. 102S. A leadline was used for fathometer comparisons and to obtain bottom specimens. Leadlines used were checked and corrections can be found in Vol. 2, p. 6 and p. 42. (See also ABSTRACT OF LEADLINE CORRECTIONS this report).

D. TIDES AND CURRENT STATIONS:

Tide reducers for both surveys were obtained from staff readings taken on a tide staff located at the Aleutian Cold Storage Co. wharf (Lat. $55^{\circ} 20.20'$ N., Long. $160^{\circ} 30.05'$ W.). *Tidal data sheet filed with H-7839(1950)*

The M. L. L. W. datum was determined by the Washington Office and applied to hourly heights obtained during the sounding period.

No current station was observed on these surveys.

E. SMOOTH SHEETS:

The smooth sheets for these surveys were made by hand on the IESTER JONES. Shoreline and wharf details were transferred to the smooth sheets from tracings which had been previously made of the boat sheets immediately upon execution of topography thereon and before any hydrography was executed. Projections were not made on the boat sheets, consequently the topography had to be oriented by triangulation stations and azimuths when transferred to the smooth sheets.

F. CONTROL STATIONS:

Additional third-order control stations were established by extending recovered 1913 control. The above was also supplemented by planetable topographic stations located directly on the boat sheets by standard methods. All 1950 triangulation stations are plotted from field computations.

G. SHORELINE AND TOPOGRAPHY:

Shoreline and topographic details were located by planetable directly on the boat sheets just prior to the hydrographic surveys (See E. above). Most of the wharf details were determined by tape measurements.

H. SOUNDINGS:

Depths were taken in feet with the 808J depth recorder and read to the nearest 0.2 foot. The magnetostriction units were placed in the bottom of the skiff about amidships and worked satisfactorily except in rough water when it was found necessary to sound on a down-wind course. Practically all sounding, however, was done in comparatively smooth water and excellent results were obtained.

Leadline soundings were taken along the faces of the wharves.

Direct fathometer-leadline comparisons were made in various depths at selected flat areas and corrections were determined on this basis. Bar checks were not taken.

Phase corrections were obtained in the field and applied accordingly. Scale corrections were not necessary. The true draft of the magnetostriction devices was determined and the initial of the recorder was set and maintained throughout. The motor speed of the recorder was verified before hydrography began.

I. CONTROL OF HYDROGRAPHY:

Three point fixes on previously located shore objects controlled the surveys. Adequate control was available for this purpose. Fixes were taken at beginning and ends of lines, turns, and generally at one minute intervals on line. Some fixes were determined at located objects such as piles and pier corners, etc.

J. ADEQUACY OF SURVEY:

The survey is complete and is adequate to supersede prior surveys for charting.

Depth curves were drawn at 1 fathom intervals.

K. CROSSLINES:

Crosslines were run and found in good agreement except on ^{H-7839} LJ-0150 where there appears to be a difference in depth of 4 feet at lat. ^{diff. not on present survey} $55^{\circ} 19' 22''$, long. $166^{\circ} 31' 10''$. The percentage of crosslines is estimated at approximately 15 percent.

L. COMPARISON WITH PRIOR SURVEYS:

No opportunity was afforded to make comparison with prior surveys.

See Review, par. 5.

M. COMPARISON WITH CHART:

Chart 8700 (Insert, Popof Strait, Northern Part, scale 1:30,000) is the largest scale chart of the areas of these surveys. The wharf and immediate shoreline areas of the current surveys supersede the charted details shown on Chart 8700, print date October 1944.

(also " " 5/22/50)

N. DANGERS AND SHOALS:

No uncharted dangers or shoals were found during these surveys. Topographic signal WRECK (lat. $55^{\circ} 20' 06.2''$, long. $166^{\circ} 29' 44.5''$) is the wheelhouse of a former Navy YMS that was removed from the vessel and cast overboard. One corner of the wheelhouse projects about 6 feet above mean high water.

Q. COAST PILOT INFORMATION:

Coast Pilot information pertaining to the immediate areas of these surveys is contained in "COAST PILOT NOTES, U.S.C. & G.S. SHIP IESTER JONES, SEASON 1950, for UNITED STATES COAST PILOT, ALASKA, PART II, 5th (1947) EDITION submitted 23 October 1950.

P. AIDS TO NAVIGATION:

No aids to navigation fall within the limits of these surveys. The light on Sand Point was relocated and reported on Form 567, dated 4 January 1951. This light falls just outside the limits of Field No. LJ-0150.

H-7839

Q. LANDMARKS:

No outstanding landmarks fall within the limits of these surveys. Two prominent radio towers just north of the limits of Field No. LJ-0250 have been reported on Form 567, dated 4 January 1951.

H-7872

R. GEOGRAPHIC NAMES:

There are no new or obsolete geographic names falling within the limits of these surveys.

S. TABULATION OF APPLICABLE DATA:

A tabulation of all data and records pertaining to these surveys is attached to this report.

A list of signals used on each survey is shown on p. 2, Vol. 1, soundings.

Review, par. 7c.

Respectfully submitted,



ROSS A. GILMORE
CDR., USCGS

Forwarded:



GEORGE A. NELSON, CDR., USCGS
COMDG., SHIP IESTER JONES

TABULATION OF RECORDS AND DATA

H-7839 H-7872
 (for LJ-0150 and LJ-0250)

Title	Form No.	Quantity	Date Forwarded to Wash. Office
Report of Tide Station	681	1 ea.	18 September 1950
Leveling Record, Tidal	258	1 ea.	" " "
Tide Observation Record	277	1 vol.	" " "
Coast Pilot Notes (Part of Coast Pilot Report for Project)			23 October 1950
Triangulation Records (Part of Dorenoi Bay (various forms) and Mitrofanía Bay areas)			21 November 1950
Sounding Records	275	2 vols.	24 January 1951
Fathograms ("a" day, LJ-0150)			" " "
Fathograms ("a" and "b" days, LJ-0250)			" " "
Fathometer - Leadline Comparisons (abstract)		1 ea.	" " "
Fathometer Corrections (attached to report of LJ-0150)		1 ea.	" " "
Abstract of Leadline Corrections		1 ea.	" " "
Geographic Names List (attached to reports)		1 ea.	" " "
Hydrographic Title Sheet (1 attached to sheet, 1 attached to Descriptive Report) 537			" " "
Hydrographic Smooth Sheet LJ-0150		1 ea.	" " "
Hydrographic Boat Sheet LJ-0150		1 ea.	" " "
Hydrographic Smooth Sheet LJ-0250		1 ea.	" " "
Hydrographic Boat Sheet LJ-0250		1 ea.	" " "

Statistics for Hydrographic Survey H-~~7872~~⁷⁸⁷² (Field No. LJ-0250)

Ship LESTER JONES Project CS-319 1950

Date	Day Letter	Vol. No.	Positions	Miles of Soundings (Stat.)
7/21/50	a	1	79	3.7
7/21/50	a	2	21	0.2
7/22/50	b	2	83	3.4
TOTALS:			<u>183</u>	<u>7.3</u>

Total area surveyed (square statute miles) 0.40

Soundings taken with 808J Depth Recorder Continuous Profile

Leadline Soundings 81

TIDE NOTE

A temporary tide staff was established at the Aleutian Cold Storage wharf, Sand Point (Lat. $55^{\circ} 20.20'$ N., Long. $160^{\circ} 30.05'$ W.) and read continuously for a period of over 50 hours to establish a datum by comparison.

MLLW on the staff was determined by the Washington Office and found to be 5.4 feet (See letter 36 reb, dated 29 September 1950).

Reduction for tide was made to the nearest 0.2 foot.

GEOGRAPHIC NAMES LIST

(Pencilled on Sheets)

H-7839
Field No. LJ-0150

**POPOF ISLAND
POPOF STRAIT**

✓
H-7872
Field No. LJ-0250

**HUMBOLDT HARBOR
POPOF ISLAND
SAND POINT (Village)**

FATHOMETER - LEADLINE COMPARISONS (feet)

808J 102S PROJECT CS-319 SAND POINT, POPOF ISLAND, ALASKA

"A" Scale	* Leadline	Correction	"B" Scale	* Leadline	Correction	"C" Scale	* Leadline	Correction
17.2	17.1	-0.1	67.4	63.3	-4.1	81.0	74.5	-6.5
13.2	13.4	+0.2	78.6	74.5	-4.1			
5.4	4.0	-1.4 R	48.5	45.7	-2.8			
5.2	4.0	-1.2 R	48.2	45.0	-3.2			
46.0	45.7	-0.3	42.5	39.7	-2.8			
45.4	45.0	-0.4						
25.6	25.2	-0.4						
25.2	24.9	-0.3						
24.8	24.5	-0.3						
24.6	24.5	-0.1						
33.3	33.3	0.0						
40.0	39.7	-0.3						

PHASE COMPARISONS

"A" Scale	"B" Scale	"A" - "B"	"B" Scale	"C" Scale	"B" - "C"
46.0	48.5	-2.5	78.6	81.0	-2.4
45.4	48.2	-2.8			
40.0	42.5	-2.5			
49.1	52.0	-2.9			
	Mean	<u>-2.7</u>			

* Leadline corr. to nearest tenth has been applied.

ABSTRACT OF LEADLINE CORRECTIONS

H-7839 *H-7872*
(for LJ-0150 and LJ-0250)

CORRECTIONS FOR 20-FATHOM LEADLINE

Depth (feet)	Correction (feet)
0.0 to 29.9	-0.2
30.0 to 90.0	-0.4

CORRECTIONS FOR 10-FATHOM LEADLINE

Depth (feet)	Correction (feet)
all depths	-0.2

CORRECTIONS FOR LEADLINE USED IN WHARF AREAS

Depth (feet)	Correction (feet)
0.0 to 17.9	0.0
18.0 to 60.0	-0.2

Fathometer corrections listed in H-7839

COPI

MESSAGE RECEIVED

AUGUST 12, 1950

WTEH DE ALB66 NR 1 CK 45 GOVT RDO SEATTLE WASH 11 AUG 5:18 PM

COMMANDING OFFICER USC&GSS LESTER JONES WTEH COLD BAY


DIRECTOR WIRES QUOTE REURLET 24 JULY PRIOR TO TERMINATION OF SEASON
WORK MAKE SURVEY VICINITIES OF DOCK AREA SAND POINT, HUMBOLDT HARBOR, ALSO
DOCK AREA EAST OF SAND POINT LIGHT. FURNISH RESULTS TO LOCAL INTERESTS
UNQUOTE.

SENIOR

TOR ALB66 / 8:53 AM AUG 12, 1950

APPROVAL SHEET

The records and sheet for this survey have been examined
by me and found adequate and no additional work is recommended.



GEORGE A. NELSON
Chief of Party, C&GS

GEOGRAPHIC NAMES

Survey No. H- 7872

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
<u>Alaska</u>				(for title)					1
<u>Shumagin Islands</u>			"	"				USGB	2
									3
<u>Popof Island</u>								USGB	4
<u>Sand Point</u>				(village)					5
<u>Humboldt Harbor</u>									6
									7
									8
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									10
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									26
									27

Names underlined in red are approved. 2-6-51. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7872..

Records accompanying survey:

Boat sheets ¹....; sounding vols. ¹...; wire drag vols.;
 bomb vols.; graphic recorder rolls ¹env;. .
 special reports, etc. 1 Smooth Sheet, 1 Tracing to accompany
H-7839 & H-7872.....

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

Number of positions on sheet	.....	183
Number of positions checked	.....	12
Number of positions revised	.....	1
Number of soundings revised (refers to depth only)	.....	20
Number of soundings erroneously spaced	.....	14
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	0
Junctions	Time	0
Verification of soundings from graphic record	Time	2

Verification by *Cyrus R. Helmer*..... Total time *98 hrs.* Date *5/16/51*

Reviewed by *J. A. Winsmore*..... Time *7 hrs.* Date *5/24/51*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7872

FIELD NO. LJ-0250

Alaska, Shumagin Islands - Sand Point (village), Popof I.

Project No. CS-319

Surveyed in August 1950

Scale 1:1,000

Soundings:

Control:

808 Fathometer
Handlead

Sextant fixes on shore signals

Chief of Party - G. A. Nelson
Surveyed by - R. A. Gilmore
Protracted by - R. A. Gilmore
Soundings plotted by - G. A. Nelson
Verified and inked by - C. R. Helmer
Reviewed by - T. A. Dinsmore, 24 May 1951
Inspected by - R. H. Carstens

1. Shoreline and Signals

The origin of the shoreline and signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

No unusual bottom features are revealed in this area of smooth bottom.

4. Adjoining Surveys

No contemporary surveys adjoin the present survey. Charted information, however, adequately joins the present survey.

5. Comparison with Prior Surveys

H-3575 (1913) 1:10,000

The present survey falls within the area covered by this prior survey. No appreciable differences are noted between the prior and present depths.

The more detailed present survey which shows new waterfront construction and depths adjacent thereto supersedes the prior survey within the common area.

6. Comparison with Chart 8700 (Latest print date 5/22/50)

A. Hydrography

Charted hydrography originates with the previously discussed survey which needs no further consideration.

The charted pier detail is superseded by the piers shown on the present survey.

B. Aids to Navigation

No aids to navigation are charted within the limits of the present survey.

7. Condition of Survey


- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done.
- c. No descriptions could be found for topographic signals INN, OUT and MAC which fall in depths of 23-26 ft. near the outer limits of the wharf. It is presumed that these signals are dolphins or piling.

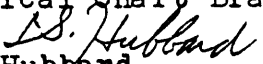
8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions.


9. Additional Field Work

The survey is entirely adequate for the purpose intended and no additional field work is required.


H. R. Edmonsten
Chief, Nautical Chart Branch


L. S. Hubbard
Chief, Section of Hydrography

Examined and approved:

H. Arnold Karo
Chief, Division of Charts


W. M. Scaife
Chief, Division of Coastal Surveys

