

# 7038

Diag'd. on Diag. Ch. No. 8863-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SU-1244 Office No. H-7038

### LOCALITY

State Alaska - Aleutian Islands

General locality Delarof Islands

Locality .....

194 5

### CHIEF OF PARTY

C. D. Meaney - Surveyor

R.F.A. Studds - Patton

### LIBRARY & ARCHIVES

DATE July 16, 1946

# 7038

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. H7038

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.

REGISTER No. SU 4244  
Field No. H-7038

State ALASKA

General locality ALEUTIAN ISLANDS

Locality DELAROF ISLANDS

Scale 1:40,000 Date of survey June - October, 1945

Instructions dated 3 February 1938

Vessel Ship SURVEYOR Ship PATTON

Chief of party C. D. Meaney RFA Studds

Surveyed by C. D. Meaney RFA Studds

Soundings taken by fathometer, graphic recorder, hand lead, wire

Protracted by Marion T. Gwinn

Soundings penciled by Marion T. Gwinn

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW

REMARKS:

Smooth Sheet and Plotting by the Seattle Processing Office

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7038 (SU-4244)

DELAROF ISLANDS, ALEUTIAN ISLANDS

1945 - C.S. 218

Scale: 1/40000

Chief of Party: C.D. Meaney, Commanding Ship SURVEYOR, 1945.

Field Work by: C.D. Meaney.

A. PROJECT:

This survey was executed under instructions for Project C.S. 218 dated 3 February 1938; Supplemental Instructions dated 16 April, 1943 and 1 February 1944; Instructions issued by Capt. F.B.T. Siems dated 5 May and 28 May, 1945.

B. SURVEY LIMITS AND DATES:

This survey covers the area between longitudes  $178^{\circ} 26' W$  and  $178^{\circ} 58' W$  and northward of the Islands of Kavalga, Ogliuga and Skagul and south and east of Gareloi Island. Junctions are made with the following surveys executed during 1945: H-7039, H-7052, H-7051, H-7050 to the south and southeast and with the reconnaissance survey of Amchitka Pass H-7049 to the westward. The work was accomplished between June 6 and October 5, 1945.

C. VESSELS AND EQUIPMENT:

The ship SURVEYOR was used for this hydrography. Depths of 100 fathoms or less were obtained by a Dorsey III fathometer. All greater depths were obtained by the RCA type NMC recorder. This recorder was also used to verify soundings from the Dorsey III fathometer.

D. TIDE AND CURRENT STATIONS:

All tide data for reducers was secured from the portable automatic tide gage maintained at Ogliuga.

No current stations were occupied.

E. SMOOTH SHEET:

The smooth sheet will be constructed and plotted by the Seattle Processing Office.

F. CONTROL STATIONS:

Triangulation executed by L.C. Wilder in 1944, supplemented by topography by the Ship PATTON in 1945 and a few signals located by sextant were used for the control. ✓

G. SHORELINE AND TOPOGRAPHY:

To be obtained from air photographs. ✓

H. SOUNDINGS:

Standard methods were used to obtain all depths. ✓

I. CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by sextant fixes. ✓

J. ADEQUACY OF SURVEY:

This survey is considered adequate over the area surveyed. ✓

K. CROSSLINES:

Crossings and junctions are satisfactory.

L. COMPARISON WITH PRIOR SURVEYS:

There have been no prior surveys in this area.

N. DANGERS AND SHOALS:

None

O. COAST PILOT INFORMATION:

See Coast Pilot Report, Aleutian Islands, by Lieut. Comdr. C.D. Meaney for 1945.

P. AIDS TO NAVIGATION:

None.

Q. LANDMARKS FOR CHARTS:

✓ Tower, 1944, Ogluga, Lat.  $51^{\circ} 36'$  1415 meters; Long.  $178^{\circ} 39'$  192 meters; Unalaska datum.

Geographic names - To be compiled by the Seattle Processing Office.

S. SILTED AREAS:

None.

T. BY PRODUCT INFORMATION:

Serial Temperatures and salinities.

Z. TABULATION OF APPLICABLE DATA:

Velocity corrections - Forwarded to Seattle Processing Office.

Coast Pilot Report - Forwarded to Washington Office.

Respectfully submitted,



WILBUR R. PORTER  
Lieut. Comdr., C. & G. Survey

Approved:



C.D. MEANEY  
Lieut. Comdr., C. & G. Survey  
Commanding Ship SURVEYOR

NOTES COVERING HYDROGRAPHY BY SHIP PATTON TO  
BE INCORPORATED IN DESCRIPTIVE REPORT BY SHIP  
SURVEYOR FOR HYDROGRAPHIC SHEETS 4244 AND 4344;  
VICINITY OF KAVALGA ISLAND 47038 47090

# # # # #

While establishing control on Kavalga Island, the Ship PATTON executed a small amount of hydrography on Sheets 4244 and 4344. The major part of the work on these two sheets was later completed by the Ship SURVEYOR.

SURVEY LIMITS AND DATES:

Sheet 4344<sup>H-7050</sup> - South shore of Kavalga Island; June 30, 1945.  
Sheet 4244<sub>H-7038</sub> - North shore of Kavalga Island; July 8 and 9, 1945.

VESSEL AND EQUIPMENT:

All soundings were taken from the Ship PATTON using the Dorsey III Fathometer. The 808 Recorder was run simultaneously as a check.

CONTROL OF HYDROGRAPHY:

The usual 3 point fix method was used with angles between triangulation and topographic signals. The same signals were used by both the PATTON and SURVEYOR.

SOUNDINGS:

Soundings were recorded from the Dorsey III in Fathoms and Feet as that instrument was so calibrated at the time the hydrography was executed.

REDUCERS:

Velocity corrections and tide reducers were obtained from the files of the Ship SURVEYOR and are the same as those used by that vessel on the balance of the sheets. These corrections have been entered in the records in Fathoms and Tenths and the soundings converted and reduced to Fathoms and Tenths to conform with the work from the Ship SURVEYOR.

Respectfully submitted,



S. B. Grenell  
Lieut. Comdr., C&GS

## VELOCITY CORRECTIONS

Corrections to and including 20 fathoms for all launch work were compiled from bar checks and for greater depths from Temperature, Salinity, and Pressure curves as well as all corrections for ship work. Reference: Report, Delarof Islands, 1945 and Descriptive Report H-7039.

A frequency meter is attached to the R.C.A. Model NMC fathometer. A reading of 60.0 indicates that the speed of the driving arm is correct. A higher reading indicates that the speed is too great and a negative correction should be applied to each sounding. Frequency meter readings between 59.7 and 60.3 indicate an error of no more than  $1/2$  of 1% and no corrections have been made when the frequency meter read within that range.

TIDE NOTE

The Ogliuga gage was used for all reducers.

Latitude 51° 36.2' North  
Longitude 178° 37.0' West.

The zero of the tide staff is 3.8 feet below M.L.L.W. Hourly heights were obtained and checked from the marigrams by the personnel of the Ship SURVEYOR. All tide reducers have been entered and checked.



H-7038  
(SU 4244)

Delarof Islands

Seattle Processing Office Notes

Smooth Sheet-

The projection is hand made on K & E Paragon Paper N-118, not the embossed German made Paragon.

Control-

1944 Triangulation by Wilder, Pierce, and Roberts.

Topographic signals are from ~~T-6999 a & b~~<sup>(1945)</sup> and T-6976. (1945)  
*Not registered*

The location of hydrographic signal BAR is in Vol. 1 of H-7039.

Boat Sheets-

After scanning for additional information not recorded, the boat sheets were returned to the field party.

Shore Line-

Except in the case of Skagul and Ogliuga Islands, no reliable shoreline is available. Except around Gareloi, there are soundings on 1:20,000 scale between the soundings of H-7038 and the included islands. No shoreline has been placed on the sheet, *except Skagul and Ogliuga from T6980 (1944)*

Discrepancies-

At Lat.  $51^{\circ} 38' 14''$  Long.  $178^{\circ} 40'$ , the 200 fm. curve of H-7038 is 200 meters south of the 200 fm. curve on boat sheet for \*H-7039.

*\*H-7039 has not been received.*

At Lat.  $51^{\circ} 38'$  Long.  $178^{\circ} 38'$ , the 40 fm. curve on H-7038 is 300 meters north of the 40 fm. curve on boat sheet \*H-7039.

The line 4D to 6D beginning at Lat.  $51^{\circ} 40.1'$  Long.  $178^{\circ} 36.2'$  and running N x W is 20 to 40 fms. shoaler than the three lines it crosses. Bathogram for D day is not available. Soundings read on dial. As the ~~crossed~~ lines are on C, B, and F days, it is recommended that this part of the line be rejected and the depth curves redrawn. *4D-6D rejected*

Note also the irregularity in the 600 fm. \*curve at Lat.  $51^{\circ} 42'$  Long.  $178^{\circ} 35'$ .  
*curve is satisfactory*

Respectfully submitted,

*Edgar E. Smith*  
Edgar E. Smith, Cart. Engr.

SIGNALS H-7038

NAME	ORIGIN
Andy	* T-PATTON
BAC	Triangulation
Bar	Sextant - Vol. 1 of H-7039
DAK (Ugidak)	Triangulation
Dog	<i>T-Patton</i>
Eat	T-PATTON
Fad	T-PATTON
Gul	Triangulation
Jar	T-PATTON
New	Sextant cuts.
Nod	T-PATTON
OFF	Triangulation
Par	"
PEAK (Gareloi)	Triangulation
Pil	Sextant cuts
Punt	T-PATTON
Shag	T-PATTON
TAG	Triangulation
Tit	T-PATTON
TOW (Tower)	TRIANGULATION
Toy	T-PATTON
Trot	T-PATTON
TWIN	Triangulation
UNALGA	"
UNA	"
VAL (Kavalga)	"
Win	T-PATTON
KOKE	Triangulation

\* T-sheet not registered  
 Destroyed 3/1/51 - 6/5/51

H-7038

Delarof Islands

STATISTICS

Date 1945	Day Letter	Volume No.	Vessel	No. of Positions	Stat. Mi. Sdg. Lines	Wire Soundings
June 6	A	1	SURVEYOR	45	26.6	
June 7	B	1	"	131	83.3	
June 8	C	2	"	114	64.8	1
June 13	D*	2	"	23	15.8	
July 7	E	2	"	10	7.0	
July 9	F	2 & 3	"	26	19.5	
July 10	G	3	"	57	34.6	
July 12	H	3	"	74	35.6	
July 13	J	3 & 4	"	117	79.3	
July 14	K	4	"	30	21.8	
July 19	L	4	"	12	8.0	
July 20	M	4 & 5	"	116	75.4	
Aug. 29	N	6	"	19	9.5	
Sept. 5	P	6	"	15	11.1	
Oct. 5	Q	6	"	2		2
July 8	A	17	PATTON	58	27.6	
July 9	B	17	"	88	40.9	3
				937	560.8	6

Area ----- 245 Square Stat. Miles

\* no photograph for "D" day -

H-7038

Delarof Islands

List of Geographic Names Penciled on Smooth Sheet

Unalga Island — 814 ✓

Kavalga Island ✓

Ogliuga Island ✓

Skagul Island ✓

Ugidak Island —

51° 45'

NA 1927

302 302 292 302 342 352 362 402 372 362 362 377 382 387 387 377 352 342 352 352 342 307 372 312 327 302 302 292 292 292 282 272 272 272 272 252 231 221 211 211 201 201 191 191 191 181 191 201 201 201 201

The sounding records for this sounding line  
 accompany H-7038. These soundings are not  
 sufficiently accurate for plotting on the present  
 survey. The soundings however may be used  
 for charting purposes until modern surveys  
 are available.

FIELD-# 8144  
 SCALE- 1:80,000  
 DATUM- UNALASKA

179° 10'

179° 05'

179° 00'

178° 55'

51° 40'



839

NWm

### TIDE NOTE FOR HYDROGRAPHIC SHEET

August 14, 1946.

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in  
9 volumes of sounding records for

HYDROGRAPHIC SHEET 7038

Locality Tanaga Island to Delarof Group, Aleutian Islands, Alaska

Chief of Party: C. Pierce and L. C. Wilder in 1944; and C. D. Meaney and  
Plane of reference is mean lower low water, reading R.F.A. Studds in 1945  
2.3 ft. on tide staff at Tanaga Bay  
10.3 ft. below B. M. 1  
3.8 ft. on tide staff at Ogliuga Island  
4.7 ft. below B. M. 1

Height of mean high water above plane of reference is 3.5 feet.

Condition of records satisfactory except as noted below:

*E. C. McKay*  
Section  
Chief, ~~Division~~ of Tides and Currents.

GEOGRAPHIC NAMES  
 Survey No. **H7038**

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Delarof Islands</u>			(for title)								1
<u>Gareloi Island</u>									U.S.G.B		2
<u>Kavalga Island</u>											3
<u>Ogliuga Island</u>			(location of one tide staff)						U.S.G.B		4
<u>Skagul Island</u>											5
<u>Alaska</u>			(for title)								6
<u>Aleutian Islands</u>		"	"								7
											8
											9
											10
<u>Tanaga Bay</u>			(location of one tide staff)								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 10/7/46



Hydrographic Surveys (Chart Division)

**H7038**

HYDROGRAPHIC SURVEY NO. ....

Records accompanying survey:

Boat sheets 1.....; <sup>returned to Field Party for Exam.</sup> sounding vols. 7 & 2...; wire drag vols. ....; bomb vols. ....; graphic recorder rolls 2 & 1.; special reports, etc. ....

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

Number of positions on sheet	.....	937
Number of positions checked	.....	40
Number of positions revised	.....	5
Number of soundings revised (refers to depth only)	.....	80
Number of soundings erroneously spaced	.....	5% → 810 800 790 not centered
Number of signals erroneously plotted or transferred	.....	—
Topographic details	Time .....	—
Junctions	Time .....	4
Verification of soundings from graphic record	Time .....	84

Verification by *Roy E. Elkins* ..... Total time *88* ..... Date *9-30-46*

Reviewed by *J. F. Jordan* ..... Time *12* ..... Date *Oct. 4, 1946*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 7038

FIELD NO. SU-4244

Alaska-Aleutian Islands, Delarof Islands  
Surveyed in June - October, 1945      Scale 1:40,000  
Project No. CS-218

Soundings:

Fathometer  
Dorsey III  
NMC Recorder

Control:

Three-point fixes on shore  
signals

Chief of Party - C. D. Meaney and R. F. A. Studds  
Surveyed by - C. D. Meaney and R. F. A. Studds  
Protracted by - M. T. Gwinn  
Soundings plotted by - M. T. Gwinn  
Verified and inked by - R. E. Elkins  
Reviewed by - G. F. Jordan, October 4, 1946  
Inspected by - H. W. Murray

1. Shoreline and Control

Control originates with contemporary triangulation and with graphic control surveys T-6980 (1944), ~~T-6999a and b~~ (1945). Shoreline on T-6980 is compiled from air photographs. *\* Not registered - destroyed - Report with H-7052*

2. Sounding Line Crossings

Disagreements of soundings at some crossings have been improved by correcting for errors in the initial on the 0 to 2000-fm. scale of the fathogram. The corrections amounted to from 10 to 20 fathoms in depths greater than 200 fathoms.

3. Bottom Configuration

The bottom between the islands on this survey is generally smooth. A seavalley trends northeast across the survey. The bottom axis of the seavalley begins in depths of about 350 fms. and descends to depths of about 1180 fms. at the limit of the present survey.

4. Adjoining Surveys

Junctions are effected on the east and south with H-7051 (1944-45) and H-7050 (1945) respectively. Junctions will be considered further when more adjoining surveys are received.

A smooth sheet (field No. DE-8144) which originally accompanied the present survey contained two sounding lines falling within the limits of the present survey. The soundings averaged about 10 to 20-fms. shoaler than the present survey in depths of about 100 to 450 fms. The sheet containing these soundings was therefore destroyed. No satisfactory reason for the disagreement could be ascertained.

5. Comparison with Prior Surveys

Blueprint 39018 (1944) containing soundings obtained by this Bureau is considered in par. 6, below.

6. Comparison with Chart 8863 (Print date of June 16, 1945)

a. Hydrography

Charted hydrography originates with reconnaissance surveys of this Bureau, bp. 39018 (1944) and of the U. S. Navy, H.O. Chart 10.241, and is superseded by the present survey within the common area. There are no important disagreements with the present survey.

b. Aids to Navigation

No aids to navigation are charted in this area. No dangers to navigation are revealed by this survey.

7. Condition of the Survey

a. The Descriptive Report and sounding records are complete in all detail.

b. The protracting of positions was excellent. Other phases of the smooth plotting were unsatisfactory with respect to quality. Inked position dots were too large and were partially erased during verification. A number of soundings were revised by as much as 10 to 20-fms. because of failure to make proper allowance for jumps in the initial where phases were changed. Another discrepancy was the failure to record and plot the bottoms of submarine valleys which occurred at odd intervals.

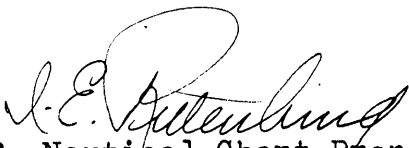
8. Compliance with Project Instructions

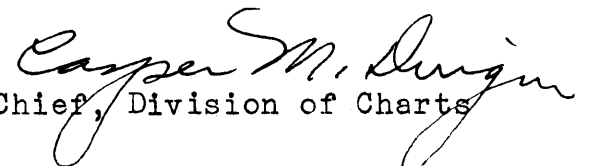
The survey adequately complies with the project instructions.

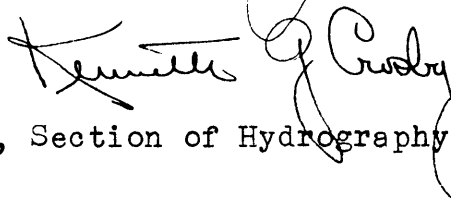
9. Additional Field Work

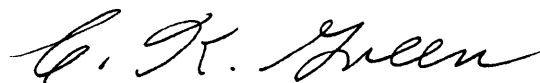
The two-mile spacing of sounding lines in the northeast portion of the present survey should be reduced to a one-mile spacing.

Examined and approved:

  
Chief, Nautical Chart Branch

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of Coastal Surveys

# NAUTICAL CHARTS BRANCH

SURVEY NO. **H7038**

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/15/50	9102	<i>SE</i>	<del>Before</del> After Verification and Review
5/31/56	8863	<i>[Signature]</i>	<del>Before</del> After Verification and Review ( <i>Ravnstr.</i> )
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.