7050

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-4344 *Office No.* H-7050

LOCALITY

State Alaska-Aleutian Islands

General locality Delarof Islands

Locality

1945

CHIEF OF PARTY
C. D. Meaney - SURVEYOR
R. F. A. Studds - PATTON

LIBRARY & ARCHIVES

DATE July 16, 1946

7050

Form 537
(Ed. Nov. 1941)

REG. NO.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

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. H-7050

Field No. SU 4344

State ALASKA

General locality ALEUTIAN ISLANDS

Locality DELAROF ISLANDS

Scale 1:40,000 Date of survey July - September 1945

Instructions dated 8 February 1938

Vessel SURVEYOR PATTON

Chief of party C. D. Meaney R F A Studds

Surveyed by C. D. Meaney R F A Studds

Soundings taken by fathometer, graphic recorder, ~~hand lead, or lead~~

Protracted by R. M. Sylar

Soundings penciled by R. M. Sylar

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

REMARKS:

Processing by the Seattle Processing Office

U. S. GOVERNMENT PRINTING OFFICE 428975

For remarks concerning the part of the work by the party of the PATTON see report for H 7038

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7050 (SU-4344)

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 is a survey of the offshore waters south of Kavalga and Unalga and north of Ulak and Amatignak. The survey also includes the pass between Kavalga and Unalga and an area east and southeast of Ulak. This hydrography was accomplished between July 11 and September 29. Junctions were made with the following hydrographic surveys executed during 1945: H-7050, H-7038, H-7052, H-7053, the hydrographic survey by the Ship PATTON south of Kavalga in 1945, and the reconnaissance survey H-7049.

C. VESSELS AND EQUIPMENT:

All depths were obtained by the Ship SURVEYOR using the Dorsey III fathometer for depths of 100 fathoms or less with recorded soundings from a type 808 recorder or the R.C.A. type NMC fathometer for verification. For soundings over 100 fathoms the R.C.A. type NMC fathometer was used.

D. TIDES AND CURRENTS:

All tidal data for the reduction of soundings ~~was~~ were obtained from the portable automatic tide gage maitained at Ogliuga.

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, C.D. Meaney in 1945, topographic surveys T-6991 (1944) and T-6993 (1945) and topographic surveys of Kavalga and Unalga executed by the Ship PATTON in 1945 furnish the control.

~~Triangulation~~ Not registered

G. SHORELINE AND TOPOGRAPHY:
To be obtained from air photographs.

H. SOUNDINGS:
Standard methods were used to obtain all depths.

I. CONTROL OF HYDROGRAPHY:
All sounding lines are controlled by sextant fixes.

J. ADEQUACY OF SURVEY:
This survey is considered adequate over the area covered.

K. CROSSLINES:
Crosslines constitute about ten percent of the survey and crossings are satisfactory.

L & M. COMPARISON WITH PRIOR SURVEYS AND CHART:
There are no prior surveys.

N. DANGERS AND SHOALS:
There are no dangers or shoals to endanger surface navigation in the completed area.

O. COAST PILOT INFORMATION:
See Coast Pilot Report by C.D. Meaney for 1945. Attention is called to that portion of the report dealing with the heavy tide rips which may be encountered in the pass between Unalga and Kavalga.

P. AIDS TO NAVIGATION:
There are no aids to navigation within this area.

Q. LANDMARKS FOR CHARTS: (From Form 567, Landmarks for charts.)
Tower, 1944, Ogliuga; Latitude 51° 36' 1415 N;
Longitude 178° 39' 192 W; Unalaska datum.
Chart L 59 (1946)

R. GEOGRAPHIC NAMES:
To be compiled by the Seattle Processing Office.

S. SILTED AREAS:
None.

Z. TABULATION OF APPLICABLE DATA:

Topographic Surveys - Forwarded to the Seattle Processing Office.

Velocity corrections - " " " " " "

Coast Pilot Report - " " " Washington Office.

Respectfully submitted,

Wilbur R Porter

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

Approved:

C.D. Meaney

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

TIDE NOTE

The Ogliuga gage was used for all reducers.

Latitude	51°	36.2'N
Longitude	178°	37.0'W

The zero of the tide staff is 3.8 feet below M.L.L.W. All reducers have been entered and checked.

STATISTICS FOR HYDROGRAPHIC SURVEY H-7050

Date	Vol.	Day	No. Positions	No. Stat. Miles
7-11-45	1	A	3	1.7
7-12-45	1	B	65	43.0
7-27-45	1	C	30	20.0
8-3-45	1	D	51	34.5
8-8-45	1 & 2	E	18	12.6
8-10-45	2	F	20	9.9
8-13-45	2	G	13	7.6
8-28-45	2	H	27	19.8
8-30-45	2 & 3	J	151	98.5
9-6-45	3	K	58	25.7
9-7-45	3 & 4	L	150	54.1
9-8-45	4	M	18	11.5
9-10-45	4 & 5	N	214	103.3
9-11-45	5 & 6	P	248	109.7
9-12-45	6	Q	15	8.7
9-14-45	6	R	19	11.5
9-28-45	6 & 7	S	67	37.1
9-29-45	7	T	32	12.0
		TOTALS.....	1199	615.5

Area 190 square miles.

VELOCITY CORRECTIONS

The standard method of computing velocity corrections from the temperature, salinity and pressure curves was followed. These corrections have been entered and checked.

A frequency meter is attached to the RCA 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 no greater than 1/2 of 1% and no corrections have been made when the frequency meter read within that range.

LIST OF SIGNALS H-7050

NAME		ORIGIN
Abe		T-6991
Bah		*T-PATTON - Kavalga
Bat		T-6993
Black		T-6993
BLUFF		Triangulation
Bump		T-PATTON- Kavalga
But		T-6991
Cab		T-6976
Cle	Pinnacle	T-PATTON - Kavalga
Cook		T-PATTON - Kavalga
Dash		*T-PATTON - Unalga
DOC		Triangulation, 1944
Eat		T-PATTON, Kavalga
Gal		T-6991
High		T-6991
How		T-PATTON - Unalga
Inter	Pinnacle Rock	So. end Amatignak - cuts
Jar		T-PATTON, Kavalga
Joe		T-6991
Jump		T-PATTON - Unalga
Ken		T-PATTON - Kavalga
Lax		T-PATTON - Kavalga
Lord		T-6991
Low		T-6993
MESA		Triangulation, 1944
NOB	(Knob)	Triangulation, 1945 (T-6993)
Nod		T-PATTON - Unalga
Monk		T-6993
OFF		Triangulation, 1944
Out		T-PATTON - Kavalga
Pit		T-6991
Rim		T-PATTON - Unalga
Rock		T-PATTON - Kavalga
ROG		Triangulation, 1944
Sam		T-PATTON - Unalga
Sam		T-6991 - Ulak
TAG		Triangulation, 1944
TAN		Triangulation, 1944
Tit		T-PATTON - Unalga
Trot		T-PATTON - Kavalga
TOW	(Tower, Ogliuga)	Triangulation, 1944
Two		T-6993
Una		T-PATTON - Unalga
UNALGA		Triangulation, 1944
ULAK		Triangulation, 1944
VAL	(Kavalga)	Triangulation, 1944

*- T-sheet not registered - destroyed
Report with H-7052 - 7/51 - GFS.

June to October 1945

Temperature & Salinity Corrections

RCA - Model NMC

Depth				Correction	
0	to	47.5	fms.	plus 0.0	fms.
48	to	105	"	" 0.2	"
105	to	112	"	" 0.4	"
113	to	238	"	" 0.5	"
239	to	337	"	" 1.0	"
338	to	416	"	" 1.5	"
417	to	485	"	" 2.0	"
486	to	545	"	" 2.5	"
546	to	602	"	" 3.0	"
603	to	650	"	" 3.5	"
651	to	700	"	" 4.0	"
701	to	741	"	" 4.5	"
742	to	781	"	" 5.0	"
782	to	816	"	" 5.5	"
817	to	855	"	" 6.0	"
856	to	888	"	" 6.5	"
889	to	919	"	" 7.0	"
920	to	948	"	" 7.5	"
949	to	975	"	" 8.0	"
976	to	1002	"	" 8.5	"

Dorsey and 808*

Depth				Correction	
14.0	to	23.5	fms.	- 0.4	fms.
24.0	to	32.5	"	- 0.6	"
33.0	to	42.0	"	- 0.8	"
42.5	to	51.5	"	- 1.0	"
52.0	to	61.0	"	- 1.2	"
61.5	to	70.5	"	- 1.4	"
71.0	to	80.0	"	- 1.6	"
80.5	to	89.5	"	- 1.8	"
90.0	to	102.0	"	- 2.0	"
103	to	126	"	- 2.5	"
127	to	150	"	- 3.0	"
151	to	174	"	- 3.5	"
175	to	198	"	- 4.0	"
199	to	220	"	- 4.5	"
221	to	244	"	- 5.0	"
245	to	272	"	- 5.5	"
273	to	299	"	- 6.0	"
300	to	325	"	- 6.5	"

* Corrections for 808 fathometers used for launch hydrography have been determined by bar checks to a depth of 20 fathoms.

H-7050
(SU 4344)

Delarof Islands

Seattle Processing Office Notes

Projection-

Hand made on Paragon paper, scale 1:40,000.

Shoreline-

None shown on smooth sheet except Ogliuga and Skagul Is from T6990(1944). The shoreline is to come from photographic compilations when available. There are standard hydrographic surveys on 1:20,000 scale between the soundings of this sheet and the included islands.

Boat Sheets-

After examination for unrecorded information, the boat sheets were returned to the field party.

Hydrographic Signal INTER-

This signal at the south end of Amatignak Island may not be rigidly fixed. There were many cuts on it. An intersection was selected which gave an apparently satisfactory plotting. It was used only on positions 131J to 139J on the southernmost line of the sheet.

Discrepancies-

Latitude	Longitude	Position	Depth (Fms.)	
51° 30.2	178° 56.8	28S	~~167~~ 177	Shoaler soundings on 2000 fm phase adjusted to agree with 100 fm phase
		8-9R	181-177	
51 26.~~25~~ 5	178 ~~58.56~~ 59.4	14-15R	219	
		40-41D	~~207~~ 217	
51 31.0	178 57.4	32S	~~102~~ 107	
		106N	105	
		16B	107	
51 30.8	178 47.8	50 fathom curve of H-7050 is 100 M. north of 50 fm. curve on H-7051. curve satisfactory		
51 29.2	178 46	100 fathom curve of H-7050 is 200 M. south of curve on H-7051. curve satisfactory		

Respectfully submitted,

Edgar E. Smith

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

H 7050 (Su 4344)

Aleutian Islands

Delarof Islands

Geographic names penciled on the smooth sheet.

Ulak I. 814✓

Unalga I.

Kavalga I.

Ogliuga I.

Skagul I.

HWM

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 14, 1946

~~Division of Hydrography and Topography~~

Division of Charts: H. W. MURRAY

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 7050

Locality Delarof Group and Southwest Side of Kavalga Island, Aleutian Islands, Alaska

Chief of Party: C. D. Meaney and R. F. A. Studds in 1945
Plane of reference is mean lower low water, reading
3.8 ft. on tide staff at Ogliuga Island
4.7 ft. below B. M. 1
5.0 ft. on tide staff at Constantine Harbor
9.9 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
Chief, ~~Division~~ Section of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 154227

GEOGRAPHIC NAMES

Survey No. H7050

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	
Delarof Islands		(for title)								1
Kavalga Island										2
Ogliuga Island		(location of one tide staff)							U.S.G.B.	3
Skagul Island										4
Unalga Island										5
Ulak Island										6
~~Ana~~										7
Amatignak Island									U.S.G.B.	8
Alaska		(for title)								9
Aleutian Islands		"	"							10
				Names underlined in red approved by L. Heck on 10/7/46						11
										12
										13
Constantine Harbor		(location of one tide staff)								14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H7050.

Records accompanying survey:

Boat sheets in field 1...; sounding vols. 8....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls ..2..;

special reports, etc. .....

.....

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

Number of positions on sheet		1199
Number of positions checked		20
Number of positions revised		7
Number of soundings revised (refers to depth only)		—
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		—
Topographic details	Time	—
Junctions	Time	8
Verification of soundings from graphic record	Time	6

Verification by Roy E. Elkins Total time 85 Date 9-16-46

Reviewed by G. F. Jordan Time 12 Date 10-2-46

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. H-7050

FIELD NO. SU-4344

Alaska - Aleutian Islands, Delarof Islands
Surveyed in July to September 1945 Scale 1:40,000
Project No. CS-218

Soundings:

Fathometer:
Dorsey III
NMC Recorder
808 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 - R. M. Sylar
Soundings plotted by - R. M. Sylar
Verified and inked by - R. E. Elkins
Reviewed by - G. F. Jordan, October 2, 1946
Inspected by - H. W. Murray

1. Shoreline and Control

Control for this survey originates with contemporary triangulation and with graphic control surveys T-6980 (1944) and T-6991, T-6993, ~~T-6999a~~, * ~~T-6999b~~ of 1945. Shoreline on T-6980 is compiled from air photographs.

* - Not registered - destroyed - report with H-7052

2. Sounding Line Crossings

Satisfactory.

3. Bottom Configuration

The bottom is generally smooth except for the shoal area between Kavalga and Unalga Islands and the irregularities outlined by the 125-fm. curve north-northwest of Ulak Island.

4. Adjoining Surveys

Satisfacory junctions are effected on the east with H-7051 (1944-45) and on the north with H-7038 (1945). Adjoining inshore surveys have not been received in the office.

5. Comparison with Prior Surveys

A reconnaissance survey, blueprint 39018 (1944), is superseded by the present survey. There are no important disagreements with the present survey.

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

a. Hydrography

Charted hydrography originates with reconnaissance surveys of this Bureau and of the U. S. Navy, and is superseded by the present survey within the common area. Mention is made of the charted 68-fm. sounding at lat. 51° 12.0', long. 178° 58.4' which should be disregarded. This sounding is on a reconnaissance line run by the Navy and is shown on blueprint 38766 (1935). The sounding is considered to have been obtained nearer Amatignak Island instead of in present depths of about 230 fathoms.

b. Aids to Navigation

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

7. Condition of the Survey

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

b. Smooth plotting was very good.

c. Development of the irregular shoal area in lat. 51° 33', long. 178° 58' with both a visual Dorsey III fathometer and an accompanying graphic recorder operated simultaneously, again demonstrates the advisability of supplementing a visual fathometer with a graphic recorder. In the locality cited (see tracing attached to review), the hydrographer subsequently found it necessary to scale seventeen shoaler depths from the graphic recorder. These depths averaged 2.7 fathoms or 16 feet shoaler than the original least depth Dorsey III recordings.

8. Compliance with Project Instructions

Satisfactory.

9. Additional Field Work

This is a basic survey and no additional field work is recommended.

Examined and approved:

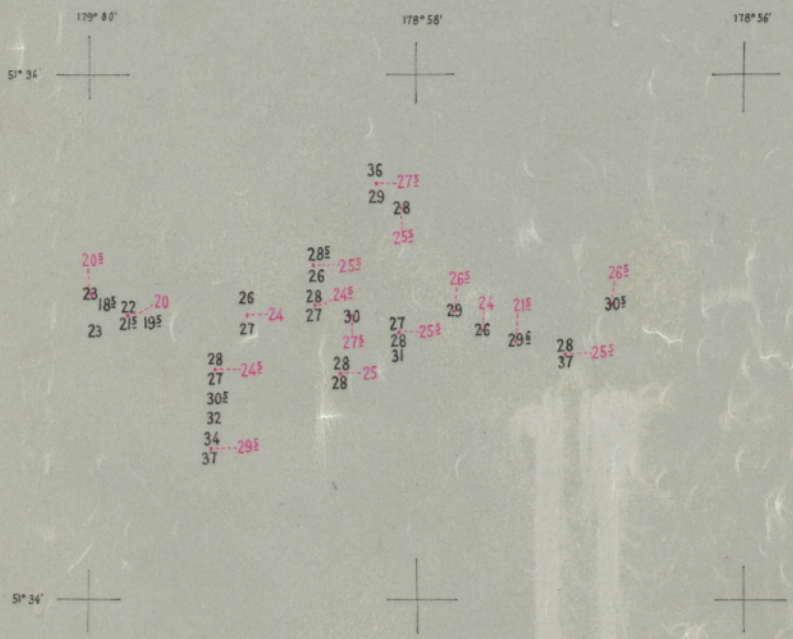
H C Edmonston
Asst Chief, Nautical Chart Branch

Carlyle W. Dunn
Chief, Division of Charts

Carl O. Hutton
Chief, Section of Hydrography

E. F. Green
Chief, Division of Coastal Surveys

See Review, Par. 7c



Illustrating shoal soundings missed by Dorsey III Fathometer

Legend

Dorsey III soundings in black

Graphic recorder soundings in red

Soundings are in fathoms

NAUTICAL CHARTS BRANCH

SURVEY NO. ~~H7050~~

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/16/48	8863	L. A. McGann	~~Before~~ (After) Verification and Review Partially applied.
6/29/50	9102	GHE	~~Before~~ After Verification and Review
5/31/56	8863	~~E. Thrasher~~	~~Before~~ After Verification and Review Completely applied & Reconstr.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

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.