7976

1:20,000

Diag. Cht. Nos. 9000-1 & 8863-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

05-218

Type of Survey Hydrographic

Field No. EX-2352 Office No. H-7976

LOCALITY

State Alaska

General locality Aleutian Islands

Locality Gareloi Island

194 52

CHIEF OF PARTY

George L. Anderson

LIBRARY & ARCHIVES

DATE APR 28 1953

B 1870 1 (1)

7976

Form 537
(Ed. June 1946)

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-7976

Field No. EX-2352

State Alaska

General locality Aleutian Islands

Locality Gareloi Island

Scale 1:20,000 Date of survey 8 July - 11 August 1952

Instructions dated 19 March 1952

Vessel USC&GSS EXPLORER

Chief of party George L. Anderson

Surveyed by F. R. Gossett, J. C. Tison, Jr., E. F. Hicks, Jr., C. A. Schoene, D. M. Whipp, R. F. Lanier

Soundings taken by fathometer, graphic recorder, hand lead, wire 808 & MMC-2 Fathometers

Fathograms scaled by Soundings read by fathometer reader

Fathograms checked by J. E. Guth, R. G. Munson, D. L. Campbell, H. A. Garcia, H. J. Woody

Protracted by E. F. Hicks, Jr.

Soundings penciled by H. C. Parsons

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

REMARKS: Fathometer calibrated for sound speed of 800 fm/sec.
No velocity corrections applied.

U. S. GOVERNMENT PRINTING OFFICE 777032

Descriptive Report
to Accompany
HYDROGRAPHIC SURVEY H 7976
Field No. EX 2352
GARELOI ISLAND
Scale 1:20,000
1952

USC&GS Ship EXPLORER G. L. Anderson Commanding

Surveyed by F. R. Gossett, J. C. Tison, Jr., E. F. Hicks, Jr., C. A. Schoene, D. M. Whipp, R. F. Lanier.

A. PROJECT

This survey was executed as part of Project CS-218 under instructions dated 19 March 1952.

B. SURVEY LIMITS AND DATES

This survey surrounds Gareloi Island and extends from the shore line to approximately two miles offshore on all sides except to the south where it is carried about one mile offshore.

Field work began on 8 July 1952 and was ended 11 August 1952.

It joins scattered lines on Sheet EX-10152, Registry No. H-7977 (1952) on all sides. Some of the lines were originally run on Sheet 10152 and replotted on this sheet. In general, all lines falling within the limits of this sheet controlled by shoran or visual angles are plotted on this sheet or on both sheets and lines controlled by EPI are plotted on Survey H-7977. Survey Field No. PA (F.E. 1, 1945) 1944, a small 1:10,000 scale anchorage survey southeast of Gareloi Island is surrounded by this survey. reduced to 1:20,000 H-7038 (1946) on S and E; H-7804 (1950) on N and W; H-7806 (1950) on NE

C. VESSELS AND EQUIPMENT

Offshore lines were run by the Ship EXPLORER. Inshore lines off the southern half of Gareloi Island were run by Launch No. 1 Intermediate lines southwest of the island and inshore lines northwest of the island were run by Launch No. 2. Inshore lines north and northeast of the island were run by Launch No. 3. All launches were operated from the ship. The turning radius of the EXPLORER at standard speed is 275 meters full left about and 360 meters full right about (from old descriptive reports.)

808 fathometers, serial numbers 60 and 113-S, were used on the ship, serial No. 50 was used in Launch No. 1, Serial No. 72 was used in Launch No. 2 and serial numbers 49 and 127 were used in Launch No. 3. NMC-2 fathometer, serial No. 60 was also used on the ship. In general the 808 fathometers on the ship were used in depths to 150 fathoms.

D. TIDE AND CURRENT STATIONS.

A portable tide gage was installed on the east side of Ogliuga Island and was used for the reduction of soundings. The staff was connected to old bench marks and the plane of MLLW computed from levels and verified by the Washington office. When this gage was out of operation, a portable gage at Lash Bay, Tanaga Island, was used with a time correction of plus one hour. Tide corrections were applied to all soundings less than 200 fathoms but not to soundings greater than 200 fathoms.

Current Station No. 21, Latitude 51°-44'.5, Longitude 178°-44'.5 W was occupied with a Roberts Radio Current Meter for 123 hours beginning 8 July 1952.

E. SMOOTH SHEET

The smooth sheet projection was made by hand by the Seattle Processing Office. They also plotted all shoran arcs. No triangulation stations were used in control of soundings. Photo-hydro signals were transferred by direct pricking through original topographic manuscript T-8015. Shoreline was transferred by means of bromoil print of manuscript T-8015. (1948)

Transfer of shoreline and topographic detail has been verified in accordance with 757, Hydrographic Manual.

F. CONTROL STATIONS

Triangulation stations on the island were located in 1943, 1944 and 1950; C. D. Meaney, C. Pierce, and E. B. Roberts, Chiefs of Party.

Photo-hydro signals located by office plot were used, and in areas where none were located by the office plot, photo-hydro signals located by field plot were used. (See Descriptive Report for Topographic Sheet T-8015 and notes submitted by this party covering photographic work in this area.

Shoran stations NAL and UGA were used. The methods used in their locations are discussed in the triangulation report.

G. SHORE LINE AND TOPOGRAPHY

The shore line and topography was from Sheet T-8015 (1948). The following revisions were made by the hydrographer:

(a) Reefs at Lat. 51°-48'.1, Long. 178°-44'.3, deleted - non-existent. See note on Boat Sheet EX-2253 b. 20 Apr 54 0.5

(b) Rock at Lat. 51°-49'.1, Long. 178°-51'.7 deleted - non-existent. See note page 55, Vol. 7, Sounding Record.

(c) Easterly of three rocks at Lat. 51°-44'.9, Long. 178°-46'.0 deleted. This is a general reef area and easterly rock was too far offshore. See sounding line Pos. 15-16a (blue) which was offshore of all rocks.

The low water line was not delineated because of rocky, steep-to coast and heavy kelp along the shore. Limits of kelp are shown on boat sheets and smooth sheet.

In accordance with 755 Hydrographic Manual, elevations of inshore rocks from T-8015 were not shown.

H. SOUNDINGS

All depths were measured by standard echo-sounding instruments. Fath report filed with H-7977 (1952) Corrections are discussed in a separate fathometer report. No corrections other than index, initial, phase, draft, squat and settlement were applied.

I. CONTROL OF HYDROGRAPHY

Hydrography on the south coast of Gareloi Island from Lat. 51°-47' on the east to 51°-47' on the west was controlled by shoran distances from shoran stations NAL and UGA. Inshore hydrography on the east coast between Latitudes 51°-47' and 51°-48.7, and on the west coast between Latitudes 51°-47' and 51°-47.8 was controlled by combination visual angle and shoran distance. Inshore hydrography on the north coast between Latitudes 51°-48.7 on the east and 51°-47.8 on the west was controlled by three-point sextant fixes. Ship work in general was controlled by shoran distances, but sextant fixes were used on the west and north sides.

J. ADEQUACY OF SURVEY

This survey is complete and should supersede prior surveys for charting. The line spacing in the bay in the vicinity of Lat. 51°-45'.0, Long. 178°-45'.7 exceeds the specifications due to plotting error on boat sheet. It is in an area of regular bottom and it is believed further investigation is not necessary.

Junctions with adjoining surveys were compared on the boat sheet and in general good agreement was obtained. Slight differences were noted but ~~they can~~ may be accounted for by the rough irregular bottom where relatively small horizontal displacement can cause considerable difference in the depth.

K. CROSS LINES

Cross lines run amount to 56.1 statute miles on slightly over 9%. Discrepancies at crossings will be added on a separate sheet when soundings are pencilled on smooth sheet.

L. COMPARISON WITH PRIOR SURVEYS

No prior surveys in this area are available.

M. COMPARISON WITH CHART

This survey was compared with Chart 8863, 4th Edition, published January 1951, print date 14 January 1952.

No inshore information is shown on this chart. The charted 50 fathom sounding, Lat. 51°-44'.2, Long. 178°-43'.9 was shifted approximately 0.3 mile northwest. All other charted information was in very close agreement.

N. DANGERS AND SHOALS

The coast is rocky, steep-to, the ten-fathom curve in general being one to two tenths of a mile offshore, except off the southwest point of the island where it is four tenths of a mile offshore. No dangerous or signifigant shoals were found. Kelp is growing almost entirely around the island but in general does not appear outside the ten-fathom curve.

There were no charted dangers, shoals, or bare rocks, and none were found except close-in to the beach.

O. COAST PILOT INFORMATION

The Survey ship anchored in vicinity of Lat. 51°-45'.9, Long 178°-44'.2 in twenty to thirty fathoms of water, black sand and rock bottom. No difficulty was experienced in holding and there was fair protection from northwest and west winds only.

Weather conditions during the period of the survey were in general good to fair. It was noted that with the wind from a southerly direction the williwaw was quite noticeable on the north side frequently reaching an eight to ten force wind with a force four wind on the windward side.

P. AIDS TO NAVIGATION

No floating nor fixed aids to navigation exist within the limits of this survey.

Q. LAND MARKS FOR CHARTS

The 50 foot pinnacle, topographic station AIM, the 70 foot pinnacle, triangulation station PIL, 1944 and GARELOI VOLCANO, 1943 are the only landmarks recommended for charting.

R. GEOGRAPHIC NAMES

Geographic names are discussed in paragraph 13 of Field Inspection Report dated 10 November 1950 for topographic map T-8015 and no additional names are recommended.

S-Y. Not applicable.

2. TABULATION OF APPLICABLE DATA

(a) Field Inspection Report Topographic Map T-8015 forwarded to office 20 November 1950.
(b) Supplement to (a) covering 1952 work forwarded to office
(c) Fathometer Report for 1952 forwarded to office with H-7977
(d) Special Shoran Report for 1952 forwarded to office 87/52
(e) Three Boat Sheets EX-2352 (a) (b) and (c).
(f) Four envelopes of fathograms
(g) Eight Sounding Volumes
(h) One smooth sheet
(i) One cahier magetic observations, station SHAG, 1944 forwarded to office 16 October 1952.
(j) Two sheets tide reducers, marigrams forwarded to office 14 September 1952.

Respectfully submitted

Edgar F. Hicks, Jr.

Edgar F. Hicks, Jr.
Commander, C&GS
Ship EXPLORER

FATHOMETER CORRECTIONS
ABSTRACT OF INDEX AND PHASE COMPARISONS

SHIP Fathometer No. 113 S

A Scale	Plus 0.2 Fm.
B Scale	Plus 1.0 Fm.
C Scale	Plus 0.4 Fm.
D Scale	Minus 1.0 Fm.

LAUNCH No. 1

A Scale	Plus 0.4 Fm.
B Scale	Plus 0.8 Fm.
C Scale	Plus 0.8 Fm.
D Scale	Plus 0.5 Fm.

SHIP Fathometer No. 60

A Scale	0.0 Fm.
B Scale	Plus 0.4 Fm.
C Scale	Plus 1.2 Fm.
D Scale	Plus 1.0 Fm.

LAUNCH No. 2 & 3

A Scale	Plus 0.2 Fm.
B Scale	Plus 1.2 Fm.
C Scale	Plus 1.2 Fm.
D Scale	Plus 1.0 Fm.

Ship NMC-2 0.0 Fm.
Ship NMC 0.0 Fm.

DRAFT AND SQUAT CORRECTIONS

Use this table for speeds greater than half speed
Subtract 2.0 Fm. from correction when using 808 Fathometer
Do not use with NMC.

2.6 Fm. 19 May to 0600 21 May
2.4 Fm. 0601 21 May to 29 May

2.5 Fm. 19 May to 29 May

2.6 Fm. 3 June to 1200 4 June
2.4 Fm. 1200 4 June to 1500 14 June
2.2 Fm. 1501 14 June to 17 June

2.5 Fm. 3 June to 1000 13 June
2.0 Fm. 1001 13 June to 17 June

2.6 Fm. 17 June to 1200, 20 June
2.4 Fm. 1201 20 June to 1400 30 June
2.2 Fm. 1401 30 June to 2 July

2.5 Fm. 17 June to 0800 25 June
2.0 Fm. 0801 29 June to 2 July

2.6 Fm. 7 July to 1400 13 July
2.4 Fm. 1401 13 July to 15 July

2.5 Fm. 7 July to 15 July

2.6 Fm. 16 July to 0000 24 July
2.4 Fm. 0001 24 July to 0800 31 July
2.2 Fm. 0801 31 July to 1 August

2.5 Fm. 16 July to 1200 30 July
2.0 Fm. 1201 30 July to 1 August

2.6 Fm. 4 August to 2000 6 August
2.4 Fm. 2001 6 August to 0200 14 August
2.2 Fm. 0201 14 August to 19 August

2.5 Fm. 4 August to 0200 13 August
2.0 Fm. 0201 13 August to 19 August

2.6 Fm. 20 August to 2100 21 August
2.4 Fm. 2100 21 August to 0000 29 August
2.2 Fm. 0001 29 August to 3 Sept.

2.5 Fm. 20 August to 0000 28 August
2.0 Fm. 0001 28 August to 3 Sept.

2.6 Fm. 7 Sept. to 2000 8 Sept.
2.4 Fm. 2001 8 Sept. to 14 Sept.

2.5 Fm. 7 Sept. to 0200 13 Sept.
2.0 Fm. 0201 13 Sept. to 14 Sept.

Use 0.2 units to 100 Fm.
Use 0.5 units over 100 Fm.

DRAFT CORRECTIONS

Use this table for half speed or less
Subtract 2.0 fathoms from correction when using 808 Fathometer
Do not use with NMC Fathometer.
Use 0.2 units to 100 fathoms, 0.5 units over 100 fathoms.

2.4 Fm 19 May to 1400 24 May	2.5 Fm 19 May to 0800 23 May
2.2 Fm 1400 24 May to 29 May	2.0 Fm 0800 23 May to 29 May
2.4 Fm 3 June to 1800 7 June	2.5 Fm 3 June to 1000 6 June
2.2 Fm 1800 7 June to 17 June	2.0 Fm 1000 6 June to 17 June
2.4 Fm 17 June to 1200 23 June	2.5 Fm 17 June to 0800 22 June
2.2 Fm 1200 23 June to 2 July	2.0 Fm 0800 22 June to 2 July
2.4 Fm 7 July to 15 July	2.5 Fm 7 July to 15 July
2.4 Fm 16 July to 1800 26 July	2.5 Fm 16 July to 2300 25 July
2.2 Fm 1800 26 July to 2200 31 July	2.0 Fm 2300 25 July to 2 August
2.0 Fm 2200 31 July to 1 August	
2.4 Fm 4 August to 0000 9 August	2.5 Fm 4 August to 2200 7 August
2.2 Fm 0000 9 August to 1000 16 August	2.0 Fm 2200 7 August to 19 August
2.0 Fm 1000 16 August to 19 August	
2.4 Fm 20 August to 0200 24 August	2.5 Fm 20 August to 0000 23 August
2.2 Fm 0200 24 August to 0300 31 August	2.0 Fm 0000 23 August to 3 Sept.
2.0 Fm 0300 31 August to 3 Sept.	
2.4 Fm 7 Sept. to 0300 10 Sept.	2.5 Fm 7 Sept. to 1200 9 Sept.
2.2 Fm 0300 10 Sept. to 14 Sept.	2.0 Fm 1200 9 Sept. to 14 Sept.

Note: All draft and draft and squat corrections are additive

APPROVAL SHEET

Hydrographic Survey, Register No. H-7976, Field No. EX-2352

The boat sheets, sounding volumes, fathograms and related data have been inspected by me and are approved.

The smooth sheet protracting has been completed. All records are being delivered to the Seattle Processing Office for penciling the soundings on the smooth sheet.

George L. Anderson
Captain, C&GS
Comdg. Ship EXPLORER

PROCESSING OFFICE

HYDROGRAPHIC FIELD PARTY SUPPLEMENT
to
Field Inspection Report
Topographic Map T-8015
Gareloi Island, Aleutian Islands, Alaska
Project CS-218
Ship EXPLORER
George L. Anderson, Comdg.
1952

The shoreline inspection and identification of horizontal control for Gareloi Island was done in 1950, so a complete photogrammetric field survey by this party was not required.

Thirty-three photo-hydro signals were constructed along the shoreline of the island as control for the hydrographic launches. Seven of these stations were pre-selected and located on the manuscript by the Washington Office. The launches were able to receive Shoran signals around the southern side of the island so photo-hydro stations were not needed in this area. The positions of the signals were pricked on the nine-lens photographs and radial plotted on the Advance Topographic Manuscript Print, T-8015 that was prepared by the Washington Office.

This photogrammetric field party did not do any additional shoreline inspection. The compiled shoreline on the manuscript was found to be accurate by the hydrographic parties with the following exceptions. The reefs located at latitude 51° 48.2', longitude 178° 44.3' on the manuscript were not found after investigation by the hydrographic party. This is noted on Boat Sheet EX-2352b. The rock awash located at latitude 51° 49.1', longitude 178° 51.7' on the manuscript was searched for and not found by the hydrographic party. This is noted on Boat Sheet EX-2352c. There is kelp growing around most of the island and in general it is within the 10 fathom depth curve. The limits of the kelp are shown on Boat Sheets EX-2352a, b and c.

Respectfully submitted

Robert C. Munson
Ensign, USC&GS

Approved and forwarded

George L. Anderson
Capt. USC&GS
Commanding Ship EXPLORER

PHOTO-HYDRO STATIONS, IDENTIFIED:

Photo Identification	Boat Sheet Identification	Photo Number
101	BAT	23877E
102	COW	23877E
103	DUM	23877E
104	FIX	23877E
105	GAS	23877E
106	HLY	23877E
107	TER	23877E
108	MOE	23877E
200	IDA	23877F
201	HEX	23877F
202	LAG	23877F
203	BAY	23877F
204	DOG	23877F
205	RED	23877F
206	ZIG	23877F
207	ACT	23876
208	BAB	23876
209	NAR	23877K
210	OST	23877K
211	PAW	23877K
212	ROD	23877K
213	SAP	23877K
214	TEK	23877K
215	UTE	23877KH
216	VAN	23877KH
217	WEB	23877H
218	YEP	23877H
219	ZOO	23877H
301	LON	23877J
302	CUT	23877J
303	DEN	23877J
304	NOT USED BY	23877J
305	HYDROGAPHIC PARTY	23877J

H 7976 Ex 2352

Aleutian Islands - Gareloi.

Processing Office Notes.

Smooth sheet.

The projection was ruled by hand on Whatman paper. The Shoran arcs are controlled by computed points. This part was done by the Seattle Processing Office. Shoreline and signals were added by the field party which also plotted the positions. Soundings were plotted by the Processing Office.

Attention is called to the following soundings which are within 500 or 600 meters of the shore.

ϕ	λ	Fms.
51 46.55	178 52.1	~~4.5~~ 5.9
~~47.8~~	~~53.5~~	~~6.1~~ no shoal sndg
44.8 75	46.8 55	~~5.9~~ 4.5

The depth curves suggest that lava flows extend down the sides of the volcano under water. Note the ridge running off the southeast part of the island in line with a series of vents running up the mountainside

The fathometer was calibrated for a sound speed of 800 fm/sec. No corrections were applied for velocity of underwater sound.

The ship's soundings on T,V & W days are recorded in the books of Sheet H 7977. (1952)

Discrepancies.

The junction of Launch 2 (green) and the EXPLORER (blue) in the vicinity of ϕ 51 50 λ 178 51 are poor. Launch 2 soundings (B scale) are apparently two fathoms too deep. (Example 30-31 b green and 291-292 B EXPLORER blue.)

The junction between Launch 1 shoran controlled lines and Launch 1 visually controlled lines is poor at ϕ 51 47 λ 178 53. The shoran controlled lines are apparently displaced 0.04 miles from the shoran station.

Adjusted to agreement by verifier

Edgar E. Smith
Cart. Engr. 4/20/53

STATISTICS FOR HYDROGRAPHIC SURVEY H-7976 1952

Vessel	Vol.	Day Letter	Date	Positions	Statute Miles
EXPLORER	1	A	9 Aug.	113	45.4
EXPLORER	1 & 2	B	11 Aug.	314	117.8
EXPLORER	2	C	15 Aug.	93	36.8
Launch No. 1	3	a(blue)	8 July	47	4.5
Launch No. 1	3	b "	7 Aug.	65	24.4
Launch No. 1	3	c "	8 Aug.	102	32.1
Launch No. 1	4	d "	9 Aug.	192	31.6
Launch No. 1	4 & 5	e "	10 Aug.	116	30.8
Launch No. 1	5	f "	11 Aug.	116	24.7
Launch No. 2	6	a(green)	8 Aug.	97	25.3
Launch No. 2	6	b "	10 Aug.	124	25.1
Launch No. 3	7	a(brown)	8 Aug.	116	23.5
Launch No. 3	7	b "	9 Aug.	9	1.7
Launch No. 3	7	c "	10 Aug.	134	23.3
Launch No. 3	7 & 8	d "	11 Aug.	162	26.5
EXPLORER*	4	T	8 July	8	6.9
EXPLORER*	4 & 5	V	10 July	106	115.2
EXPLORER*	5	W	11 July	10	7.8
		TOTALS		1924	603.4

* Note: T, V & W Days for Ship EXPLORER run on Survey H-7977 (EX-10152) included in volumes for that sheet but plotted on this sheet.

Vessel	Square Statute Miles
EXPLORER	40.3
Launch No. 1	9.9
Launch No. 2	4.1
Launch No. 3	5.8
Total	60.1

Total area is greater than shown on Season's Report because of inclusion of lines on T, V & W days.

TIDE NOTE TO ACCOMPANY HYDROGRAPHIC SURVEY H-7976

A portable tide gage on the east side of Ogliuga Island, Latitude 51° 36'.2 N, Longitude 178° 37'.0 W was used for reduction of all soundings. MLLW on the staff was 2.0 feet.

No time or height correction was applied to this station.

When this station was out of operation, a portable gage at Lash Bay, Tanaga Island, Latitude 51° 40.3 N, Longitude 178° 02.6 W was used with a plus one hour time correction and no height correction. MMLW on this staff was 1.8 feet.

H 7976
Ex 2352

Aleutian Islands - Gareloi.

List of geographic names
penciled on smooth sheet.

Gareloi Island

Bering Sea

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coast and Geodetic Survey~~ 18 May 1953

Division of Charts: R. H. Carstens

Plane of reference approved in 8
volumes of sounding records for

HYDROGRAPHIC SHEET 7976

Locality Aleutian Islands, Alaska

Chief of Party: G. L. Anderson in 1952
Plane of reference is mean lower low water, reading
2.0 ft. on tide staff at Ogliuga Island
4.7 ft. below B. M. 1 (1944)

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 of Tides
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877933

GEOGRAPHIC NAMES

Survey No. H-7976

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	
Alaska										1
Aleutian Islands		(for title)								2
										3
Gareloi Island									B.G.N.	4
Bering Sea									"	5
										6
										7
				Names underlined in red are approved 5-14-53 L. Heck.						8
										9
										10
										11
Oglinga Island									B.G.N.	12
Lash Bay, Tanaga I.			(location of tide gages)							13
										14
										15
										16
										17
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										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 7976

Records accompanying survey:

Boat sheets 3; sounding vols. 8; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 4 Env.;

special reports, etc. 1 Descriptive Report; 1 Smooth Sheet;

.....

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

Number of positions on sheet		1924
Number of positions checked		150 *
Number of positions revised		12
Number of soundings revised (refers to depth only)		75
Number of soundings erroneously spaced		50
Number of signals erroneously plotted or transferred		-----
Topographic details	Time	.5 hrs
Junctions	Time	12 hrs
Verification of soundings from graphic record	Time	16 hrs

Verification by A. J. Heffman ...Total time 382 hrs Date 10/28/54

Reviewed by .... A. R. STIRNI ..... Time 40 hrs. Date 11/17/54

* Numerous positions checked in resolving crossing discrepancies in this irregular bottom area. V-Day lines from sheet on H-7977 were bad!

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7976 FIELD NO. EX-2352

Alaska, Aleutian Islands, Gareloi Island

Project No. CS-218

Surveyed - July, August 1952 Scale 1:20,000

Soundings:

808 Fathometer
NMC-2 Fathometer

Control:

Shoran fixes
Three-point sextant fixes
Sextant angles and Shoran distances

Chief of Party - G. L. Anderson
Surveyed by - F. R. Gossett, J. C. Tison, Jr, E. F. Hicks, Jr., C. A. Schoene, D. M. Whipp, R. F. Lanier
Protracted by - E. F. Hicks, Jr.
Soundings plotted by - H. C. Parsons
Verified and inked by - A. J. Hoffman
Reviewed by - A. R. Stirni 11/17/54
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the unreviewed air-photographic survey T-8015 (1948). As noted in the Descriptive Report of T-8015 the elevation of the highest part of the island (volcano) is 5160 ft. above MSL. The charted elevation (Chart 8863) is 5334 ft. above MSL.

The following revisions were made by the hydrographer:

Feature	Latitude	Longitude	Disposition
Reefs	51°48.1'	178°44.3'	Deleted
Rock	51°49.1'	178°51.7'	Deleted
Easterly of 3 rocks	51°44.9'	178°46.0'	Deleted

The source of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at sounding line crossings are in good agreement considering the irregularity of the bottom and the steep slopes.

3. Depth Curves and Bottom Configuration

The present survey covers the submerged portion of a volcanic island which slopes sharply to depths of 100 to 600 fathoms. Convolutions in the depth curves, characteristic of volcanic overflow are noticeable, particularly on the north and east sides of the island. The presence of heavy kelp and inshore reefs and rocks prevented the complete development of depth curves of five fathoms or less. Depth curves seaward of the 5 fathom depth are adequately delineated.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7038 (1945) on the south and east and with F. E. 1 (1945), an anchorage survey off the southeast coast of Gareloi Island. Soundings from F. E. 1 (1945) have been added to the present survey in red to furnish a more complete portrayal of the area surveyed. The junctions with scattered lines on H-7977 (1952) entirely surrounding the present survey, H-7804 (1950) on the north and west, and H-7806 (1950) on the northeast will be considered in the review of those surveys.

5. Comparison with Prior Surveys

There are no prior registered surveys of this Bureau within the limits of the present survey.

6. Comparison with Chart 8863 (Latest print date 1/14/52)

A. Hydrography

The charted soundings originate with trackline reconnaissance soundings compiled on board ship by C.& G.S. field parties and shown on blue prints 39018 and 40307, and Chart Letter 179 (1946). Other soundings are from F. E. 1, (1945) and the unverified contemporary survey H-7804 (1950). Prior reconnaissance soundings provide only generalized information regarding bottom configuration and are entirely superseded by the present survey. Much of the area is uncharted.

B. Aids to Navigation

There are no aids to navigation 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. Numerous rock awash symbols which were too small for adequate legibility were enlarged.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

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

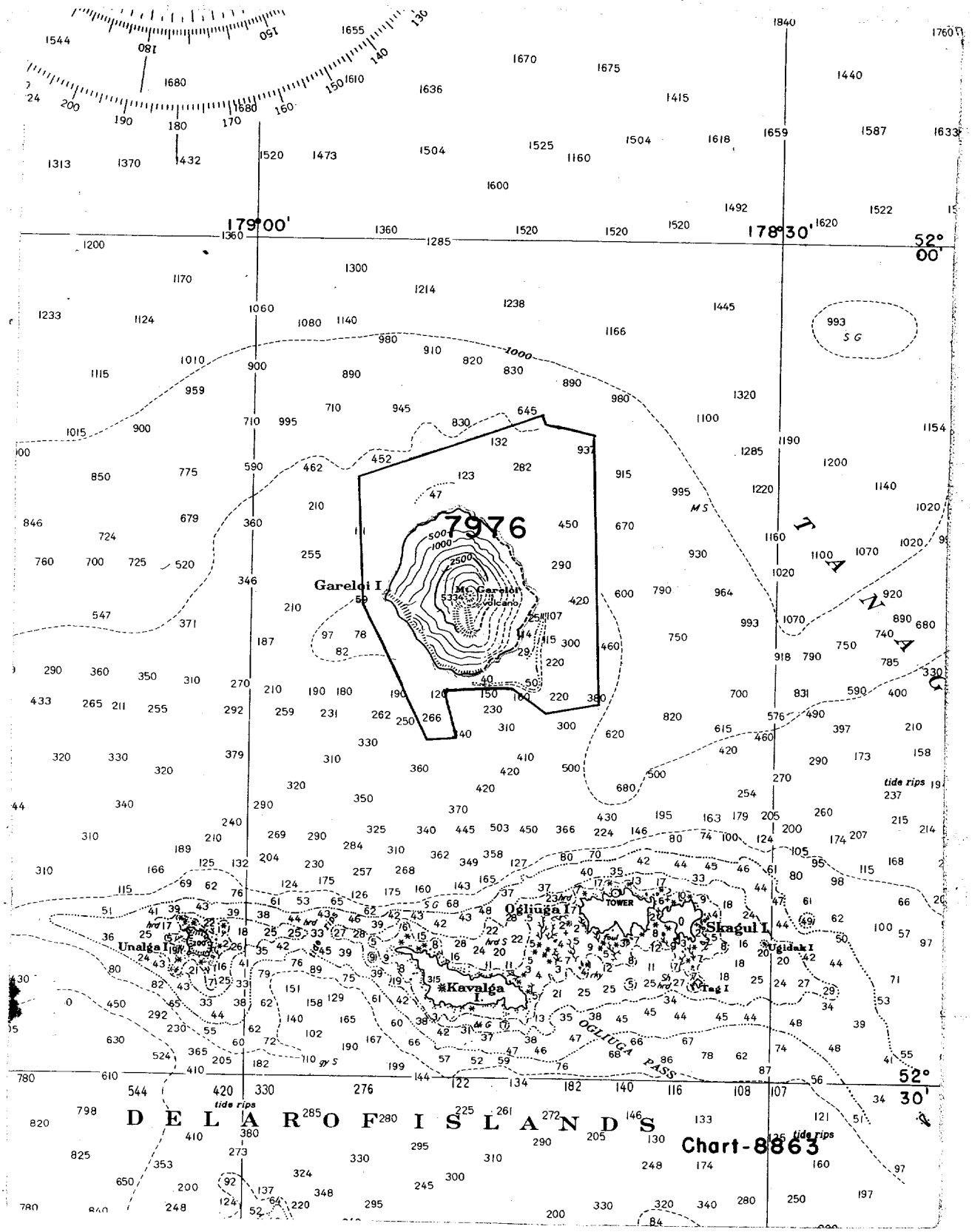
Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Acting Chief, Division of Charts

G. R. Fish
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys


179°00'
178°30'
52° 00'
52° 30'
7976
Gareloi I
Mt. Gareloi Volcano
Ogliuga I
Skagul I
Unalga I
Kavalga I
Tag I
Ugidak I
OGLIUGA PASS
TOWER
tide rips
D E L A R O F I S L A N D S
Chart-8863

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7976

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5-15-57	9102	C.R. Wittmann	~~Before~~ After Verification and Review
11/24/58	8863	JJW & HFS	~~Before~~ After Verification and Review Completely applied to record.
			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
			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.