

7805

Disc. Cht. No. 8262-3

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC  
Field No. FI-8250 Office No. H-7805

LOCALITY

State TERRITORY OF ALASKA  
General locality ALEUTIAN ISLANDS  
Locality AMCHITKA PASS

194 50

CHIEF OF PARTY

T. B. Reed

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DATE Feb. 21, 1951

6-1870-1 (1)

7805

FEB 21 1951

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-7805

Field No. PI-8250

State Territory of Alaska

General locality Aleutian Islands

Locality Amchitka Pass

Scale 1:80,000 Date of survey 30 May 1950 to 1 June 1950

Instructions dated (see enclosed List of Instructions)

Vessel Ship Pioneer

Chief of party Thos. B. Reed

Surveyed by E.B. Latham, F. Natella, R.A. Marshall, P.A. Weber, J.O. Phillips

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

Fathograms scaled by W.N.M., H.W.K., B.D.W., L.F.V.,

Fathograms checked by W.N.M. & H.W.K.

Protracted by A.C. Holmes

Soundings penciled by A. C. Holmes

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

REMARKS: Shoran Control

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

AMCHITKA PASS

H-7805 (Field PI-8250)  
Project CS-218 Season of 1950  
Ship PIONEER Thos. B. Reed, Chief of Party  
Scale 1:80,000 Surveyed by: Ship's Officers

A. PROJECT

The work was done in accordance with the following instructions for Project CS-218.

Original instructions dated 3 February 1938  
Amended instructions dated 1 March 1938  
Supplemental instructions dated February 1950

B. SURVEY LIMITS AND DATES

This survey covers the area of the reported shoal west of the Delarof Islands. It extends approximately from Lat.  $51^{\circ} - 05'$  to  $51^{\circ} - 35'$  North, and from Long.  $179^{\circ} - 00'$  to  $179^{\circ} - 50'$  West.

Junctions were made with surveys by the Ship EXPLORER during the 1950 season on the North and West of this survey. (see Review, par. 4)

Field work began on 30 May 1950 and ended on 1 June 1950.

C. VESSELS AND EQUIPMENT

The hydrography was done by the Ship PIONEER. The following sounding equipment was used.

NMC-2	No. S-115
808-J	No. S-108
NMC	No. I-766

D. TIDE AND CURRENT STATIONS

Tide reducers were obtained from the tide gage at Constantine Harbor, Amchitka Island. No time or range corrections were applied.

No current stations were occupied.

A tidal note is included in this report.

E. SMOOTH SHEET

The projection and shoran curves were drawn by hand on the Ship PIONEER.

F. CONTROL STATIONS

All of the triangulation stations used for control on this survey were located by the Coast and Geodetic Survey and are on the NA 1927 datum.

Shoran stations TINY and SEMI were located by triangulation. Station Gare was located by triangulation and traverse.

G. SHORELINE AND TOPOGRAPHY

No shoreline or topographic work was done on this survey.

H. SOUNDINGS

Depths are obtained by the Fathometers enumerated in paragraph "C". All soundings were scanned from the graphs and verified by Officer personnel. Velocity, draft and initial corrections were applied. Phasing corrections were also applied to the 808-J soundings where applicable. These phase corrections were obtained by scaling the phasing jumps from all the graphs for the seasons work on CS-219 wherever the 808-J 108S was used. A mechanical correction linearly increasing with depth at the rate of -50 fathoms per 2050 fathoms on the NMC was combined with the 800 fathoms per second velocity correction when this fathometer was used.

I. CONTROL OF HYDROGRAPHY

All of the hydrography of this survey was controlled by shoran observations.

J. ADEQUACY OF SURVEY

This survey is considered complete and adequate for the area covered.

K. CROSSLINES

Crosslines comprise approximately 7% of the total mileage of hydrography on this sheet. Crossings are in satisfactory agreement.

L. COMPARISON WITH PRIOR SURVEYS

There are no prior detailed surveys in this area.

M. COMPARISON WITH CHART

Chart # 8863 ( April 1965 - 3rd. Edition)

The reported 11 Fathoms shown on the chart at Lat.  $51^{\circ} - 19' - 45''$  North. and Long.  $179^{\circ} - 26' - 30''$  West was not found, nor were the 40 and 42 Fathoms at Lat.  $51^{\circ} - 24'$  North, and Long.  $179^{\circ} - 31'$  West. The 50 Fathoms shown at Lat.  $51^{\circ} - 22' - 30''$  North, and Long.  $179^{\circ} - 30' - 30''$  West is in good agreement with the shoalest depths found in this survey. It is recommended that the new survey supersede all prior surveys for charting purposes.

49 charted  
from prior  
survey

N. DANGERS AND SHOALS

There are no dangers to surface navigation within the area of this survey.

O. COAST PILOT INFORMATION

See the special report, "1950 Coast Pilot Notes", Submitted by PIONEER on 20 October 1950.

Q. LANDMARKS FOR CHARTS

There are no landmarks for charts within the area of this survey.

R. GEOGRAPHIC NAMES

There are no new geographic names in this area covered by this survey.

U. VELOCITY CORRECTIONS

See special report <sup>with ~~1-22~~</sup> to be submitted. Abstracts of the final theoretical corrections are included in this report.

V. SHORAN CORRECTIONS

See "Shoran Summary", 1950 Season and Shoran Corrections, 1950. included in this report.

X. DATA INCLUDED IN THIS REPORT

1. Index of Surveys
2. Velocity correction abstracts (3)
3. Phase corrections 808-J #108S
4. Initial corrections
5. Shoran summary, 1950 Season
6. Shoran corrections, 1950
7. Statistics
8. Approval sheet
9. Tide Note
10. Tide reducers

Z. TABULATION OF APPLICABLE DATA

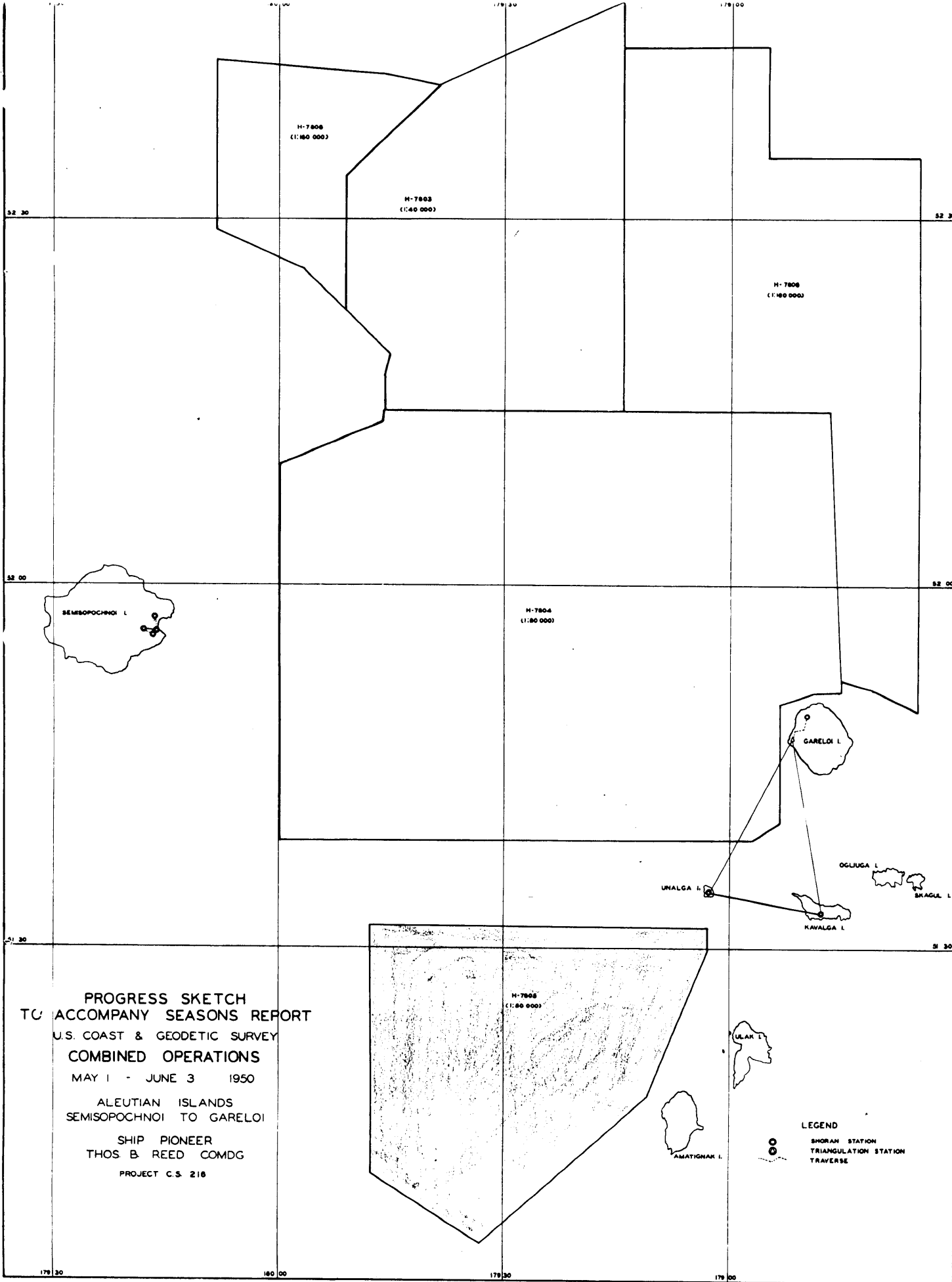
1. Computation of velocity corrections CS-218, 1950, To be submitted
2. Third and fourth order computations, To be submitted
3. Seasons report, 1950, Submitted 21 Dec. 1950

Respectfully submitted:

9 February 1951

Forwarded: *Thos. B. Reed*  
Thos. B. Reed  
CDR. USC&GS  
Comdg. Ship PIONEER

*Alfred C. Holmes*  
Alfred C. Holmes  
Ensign - USC&GS



PROGRESS SKETCH  
 TO ACCOMPANY SEASONS REPORT  
 U.S. COAST & GEODETIC SURVEY  
 COMBINED OPERATIONS  
 MAY 1 - JUNE 3 1950  
 ALEUTIAN ISLANDS  
 SEMISOPOCHNOI TO GARELOI  
 SHIP PIONEER  
 THOS B REED COMDG  
 PROJECT C.S. 218

**LEGEND**  
 SHORAN STATION  
 TRIANGULATION STATION  
 TRAVERSE

VELOCITY CORRECTIONS

1950

Project CS-218

808-J Fath. Ship

Corr'n fms.

Depth fms.

0.0	0.0 - 4.0
0.1	4.1 - 7.5
0.2	7.6 - 11.0
0.3	11.1 - 15.0
0.4	15.1 - 18.5
0.5	18.6 - 22.0
0.6	22.1 - 26.0
0.7	26.1 - 29.6
0.8	29.7 - 34.0
1.0	34.1 - 42.0
1.2	42.1 - 48.4
1.4	48.5 - 56.9
1.6	57.0 - 64.0
1.8	64.1 - 71.9
2.0	72.0 - 79.0
2.2	79.1 - 87.4
2.4	87.5 - 94.8
2.6	94.9 - 102.0
3.0	102.1 - 120.0
3.5	120.1 - 139.0
4.0	139.1 - 156.5
4.5	157.0 - 160.0

COMBINED VELOCITY & SCALE CORRECTIONS ← see 21, 22

1950

NMC Fathometer Project CS-218

<u>Corr'n. fms.</u>	<u>Depth fms.</u>
-1.2	30 - 72
-2.2	73 - 109
-2.5	110 - 112
-3.5	113 - 152
-4.5	153 - 192
-5.5	193 - 232
-6.5	233 - 272
-7.0	273 - 312
-8.0	313 - 352
-9.0	353 - 392
-10	393 - 472
-11	473 - 512
-12	513 - 592
-13	593 - 632
-14	633 - 712
-15	713 - 792
-16	793 - 872
-17	873 - 1032
-18	1033 - 1192
-19	1193 - 1357
-18	1358 - 1605
-17	1606 - 1720
-16	1721 - 1797
-15	1798 - 1877
-14	1878 - 1957
-13	1958 - 2005
-12	2006 - 2025
-11	2026 - 2032



VELOCITY CORRECTIONS

1950

Project CS-218  
 MAC-2 Fathometer

<u>Corr'n fms.</u>	<u>Depth fms.</u>	<u>Corr'n fms.</u>	<u>Depth fms.</u>
-0.2	24 - 107	plus 18.0	1396 - 1420
-0.5	108 - 250	plus 19.0	1421 - 1465
0.0	251 - 390	plus 20.0	1466 - 1500
plus 0.5	391 - 484	plus 21.0	1501 - 1526
plus 1.0	485 - 530	plus 22.0	1527 - 1565
plus 1.5	531 - 580	plus 23.0	1566 - 1585
plus 2.0	581 - 620	plus 24.0	1586 - 1618
plus 2.5	621 - 685	plus 25.0	1619 - 1653
plus 3.0	686 - 715	plus 26.0	1654 - 1677
plus 3.5	716 - 742	plus 27.0	1678 - 1704
plus 4.0	743 - 780	plus 28.0	1705 - 1728
plus 4.5	781 - 810	plus 29.0	1729 - 1752
plus 5.0	811 - 865	plus 30.0	1753 - 1780
plus 6.0	866 - 919	plus 31.0	1781 - 1809
plus 7.0	920 - 967	plus 32.0	1810 - 1830
plus 8.0	968 - 1020	plus 33.0	1831 - 1858
plus 9.0	1021 - 1070	plus 34.0	1859 - 1880
plus 10.0	1071 - 1118	plus 35.0	1881 - 1908
plus 11.0	1119 - 1165	plus 36.0	1909 - 1930
plus 12.0	1166 - 1204	plus 37.0	1931 - 1955
plus 13.0	1205 - 1253	plus 38.0	1956 - 1975
plus 14.0	1254 - 1289	plus 39.0	1976 - 2000
plus 15.0	1290 - 1323	plus 40.0	2001 - 2022
plus 16.0	1324 - 1358	plus 45	2023 - 2200
plus 17.0	1359 - 1395		

PHASING CORRECTIONS - FATHOMETER 808 J - No. ~~78~~ 108S

PROJECT CS - 218

SHEETS 4150, 8150 and 8250

14 May to 1 June 1950

A	B	A - B	B	C	B - C	B	C	B - C
41.5	43.0	-1.5	76.0	76.0	0.0	82.5	83.5	-1.0
48.0	49.5	-1.5	82.0	82.0	0.0	78.0	78.2	-0.2
47.2	47.5	-0.3	80.0	80.8	-0.8	81.0	81.2	-0.2
50.3	50.8	-0.5	80.5	81.3	-0.8	80.0	80.5	-0.5
50.4	50.0	+0.4	74.7	75.0	-0.3	84.5	85.0	-0.5
48.7	47.8	+0.9	80.0	80.5	-0.5	75.5	75.7	-0.2
53.0	53.6	-0.6	82.0	82.8	-0.8	74.6	75.0	-0.4
53.5	53.5	0.0	76.8	77.0	-0.2	89.5	89.0	+0.5
46.5	47.0	-0.5	86.2	86.1	+0.1	85.0	85.0	0.0
53.0	53.0	0.0	76.0	76.1	-0.1	85.5	86.2	-0.7
53.5	54.0	-0.5	74.5	75.3	-0.8		48	-13.2
53.5	54.0	-0.5	86.0	86.2	-0.2			- 0.27
	12	-4.6	80.5	80.8	-0.3			
		-0.38	76.2	77.0	-0.8			
			78.0	78.8	-0.8			
			78.8	79.0	-0.2			
			85.7	86.0	-0.3			
			77.2	77.2	0.0			
			80.5	80.5	0.0			
			73.5	75.0	-1.5			
			80.5	80.0	+0.5			
			80.0	79.2	+0.8			
			78.6	78.6	0.0			
			81.0	80.8	+0.2			
			70.0	70.1	-0.1			
			84.0	84.0	0.0			
			76.3	76.9	-0.6			
			82.5	82.5	0.0			
			85.0	85.3	-0.3			
			75.0	74.8	+0.2			
			78.7	79.0	-0.3			
			80.0	80.0	0.0			
			81.8	81.7	+0.1			
			72.6	72.6	0.0			
			80.6	81.3	-0.7			
			77.2	77.5	-0.2			
			80.7	81.4	-0.7			
			81.3	81.8	-0.5			

## PHASING CORRECTIONS - FATHOMETER 808 J - No. 108S

PROJECT CS - 218

SHEETS 4150, 8150 and 8250

14 May to 1 June 1950

C	D	C - D					
115.5	116.8	-1.3					
116.0	115.2	+0.8					
106.8	105.7	+1.1					
121.7	121.6	+0.1					
110.0	109.0	+1.0					
117.2	117.0	+0.2					
108.3	109.0	-0.7					
115.0	114.8	+0.2					
112.3	112.0	+0.3					
112.2	113.0	-0.8					
107.5	108.0	-0.5					
119.0	118.5	+0.5					
115.2	115.3	-0.1					
112.0	111.5	+0.5					
116.5	116.0	+0.5					
105.5	106.0	-0.5					
114.6	114.8	-0.2					
109.8	110.2	-0.4					
116.5	117.0	-0.5					
117.7	117.0	+0.7					
116.7	116.2	+0.5					
119.2	119.0	+0.2					
109.7	109.7	0.0					
122.0	122.5	-0.5					
119.0	119.5	-0.5					
117.5	108.5	-1.0					
121.0	121.2	-0.2					
	27	-1.2					
		-0.04					
					Final		
					Phase Corrections		
					A - Scale	-0.40	
					B - Scale	-0.64	
					C - Scale	-0.6	
					D - Scale	-0.6	

INITIAL CORRECTIONS

PI - 8250 CS - 218  
808 J - No. 108S

Period - 30 May - 1 June 1950

	From Pos.	To Pos.	Corr. Fm.					
A day	No 808 Fath. Soundings.							
B day	0.0 correction all day							
C day	4 +2	25 +3	0.0					
	144	146	0.0					
	146 +1	150 +2	-0.2					
	150 +3	153 +9	-0.4					
	154	--	0.0					
				NMC - 2 - No. 115				
A day	+1.0 fathoms all day							
B day	1	8 +6	-5.0					
	8 +7	39 +7	0.0					
	39 +8	46 +2	-5.0					
	46 +3	181	+2.0					
	182	245	+1.0					
	246	272	+2.5					
C day	-2.0 fathoms all day.							
				NMC - No. I-769				
B day	-15.0 fathoms all day.							
							Comp. Checked.	F.N. E.L. ✓

SHIP PIONEER

Project CS-218 Sheets PI-7150, 8150, 8250, 16150  
Project CS-341 Sheets PI-2150, 2250, 2350, 2450, 2550, 4250

The following Shoran Stations were installed and operated by the Ship PIONEER during the 1950 field season:

Station GARE on NW side Gareloi Id., Aleutians, elevation 840 ft.  
Station SEMI on east side Semisopochnoi Id., Aleutians, elevation 820 ft.  
Station HILL 3.7 naut. miles NE of Nome, Alaska, elevation 380 ft.  
Station QUON 2.0 naut. miles NE of Nome, Alaska, elevation 45 ft.  
Station PINE 0.5 naut. miles East of Wales, Alaska, elevation 770 ft.  
Station LAC 12.3 naut. miles NE of Wales, Alaska, elevation 70 ft.  
Station JUNK 25.2 naut. miles NE of Wales, Alaska, elevation 155 ft.  
Station WAI 3.0 naut. miles NE of Wales, Alaska, elevation 50 ft.

In addition Station TINY installed by the Ship EXPLORER on the eastern end of Anchitka Id. (Constantine Harbor), Aleutian Ids. was used for a short time.

This season a refinement was used in taking the periodic "zero checks". The receiver was tuned to approximately 250 mcps (the normal received pulses on the ship equipment are 310 mcps) and only the high frequency output pulse from the ship transmitter was used on both the rate and drift channels (the two output frequencies of the ship equipment are 230 and 250 mcps). The various zero check readings agreed so closely that an average correction was applied for each shore station.

Prior to leaving Oakland each shore set was taken to a triangulation station approximately 29 statute miles southeast of the ship site and was calibrated against each ship set. In all cases the zero set reading was adjusted so that actual or true distance readings were observed on the ship indicators.

On the two shore installations in the Aleutian Ids. (GARE AND SEMI) it was not practicable to calibrate the observed distances against true distances due to rough seas and inclement weather. Selected fixes that occurred on the GARE-SEMI range were abstracted and the shoran distances were compared to the true distance (computed). The average distances for the shoran failed to add to the true distance by less than .01 mile and therefore there were no corrections applied to GARE or SEMI. The zero check readings for these two stations have a run of ~~plus~~ .005 mile from the average. The correction for TINY was obtained while plotting smooth Sheet PI-8250 to obtain a minimum jump on the sounding lines when changing the shoran stations.

Three-point fixes were used to obtain the correction for HILL and QUON. Triangulation stations were used in all cases with an average distance of 3 miles for the ship and Launch #3 (Launch #3 was in the chocks and the angles were taken at the Launch antenna) and 2.5 miles for Launch #4. Simultaneously with the fixes the shore distances were read. The true distances were obtained mathematically.

For the field work around Cape Prince of Wales the same shore equipment was used at LAG, CHUK, and NAM with the only difference being in the length of coax cables (140 feet for CHUK and 82 feet for LAG and NAM). The equipment at PRIN was not placed during the time the station was in operation. Three-point fixes or triangulation stations were used to obtain the shore corrections on PRIN and CHUK (the data on CHUK used also for LAG and NAM). The Ship and Launch were close to the station, as in the case for HILL and QUON. There were no tests made for Launch #4 (it was assumed that the test for Launch #3 would suffice as the installations were similar) as the shore equipment kept breaking down due to an inadequate power supply - an Onan Gasoline Generator was mounted on the fantail and the roll and pitch of the Launch caused excessive voltage fluctuations.

The various zero-check readings for HILL, QUON, PRIN, LAG, CHUK and NAM agreed closely - plus or minus .008 mile being the maximum from the average.

## SHORAN CORRECTIONS 1950

Project CS-218, CS-341

Ship PIONEER

GARE	Ship	Plot as observed
SEMI	Ship	Plot as observed
TINY	Ship	Plot as observed
HILL	Ship, Launch #3 Launch #4	Add .03 miles Plot as observed
QUON	Ship, Launch #3 Launch #4	Add .02 miles Plot as observed
PRIN	Ship (Set #4) Ship (Set #3) Ship, (Set #3) Launch #3 & #4	Add .02 miles Add .01 miles for sheets PI 2350, 2450 & 2550 Plot as observed for sheets PI 2250, 4250 Plot as observed
CHUK	Ship (Set #4) Ship (Set #3) Ship (Set #3) Launch #3 & #4	Subtract .01 mile Subtract .02 miles for sheet PI 2350 Subtract .01 mile for sheets PI 2450 & 2550 Plot as observed
LAG	Ship Launch #3 & #4	Subtract .02 miles Plot as observed
HAN	Launch #3	Plot as observed

## STATISTICS FOR HYDROGRAPHIC

Survey No. H-7805 (1950)

Ship PIONEER

Project CS-218

Day Letter	Vol. No.	Date 1950	No. of Pos.	Stat. Mi. Sdg. lines	Sq. Stat Miles
A.	1	30 May	12	18.4	
B.	1 & 2	31 May	272	414.0	
C.	2 & 3	1 June	188	230.5	
Totals			472	662.9	700



## TIDE NOTE

Project CS-218

Ship PIONEER

Field Season 1950

The tide gage at Constantine Harbor, An<sup>m</sup>chitka Island, Aleutian Islands, Alaska, Latitude  $51^{\circ} - 24.8'$  North, and Longitude  $179^{\circ} - 16.8'$  East, was used for the reductions of all soundings.

A height of 2.5 feet on the tide staff corresponds to mean lower low water. No corrections for time or height differences were applied to the observed tides.

Hourly heights were obtained from the Ship EXPLORER.

TIDE CORRECTIONS PROJECT CS-218

SHEETS PI-8150 - 8250 - 4150 and 16150  
Correction soundings 1 to 101 fms.

<u>DATE</u>	<u>FROM</u>	<u>TO</u>	<u>CORR'N FM.</u>	<u>DATE</u>	<u>FROM</u>	<u>TO</u>	<u>CORR'N FM.</u>
5-12-50	1200	1500	-0.4	5-28-50	0000	0210	-0.4
5-12-50	1501	2032	-0.2	5-28-50	0211	0440	-0.2
5-12-50	2033	2400	-0.4	5-28-50	0441	1000	-0.0
				5-28-50	1001	1925	-0.2
5-17-50	0610	1500	-0.2	5-28-50	1926	2400	-0.4
5-17-50	1501	1815	-0.4				
5-17-50	1816	2400	-0.6	5-29-50	0000	0250	-0.4
				5-29-50	0251	0425	-0.2
5-18-50	0000	0400	-0.6	5-29-50	0426	1210	-0.0
5-18-50	0401	0638	-0.4	5-29-50	1211	1830	-0.2
5-18-50	0639	0900	-0.2	5-29-50	1831	2200	-0.4
5-18-50	0901	1335	0.0	5-29-50	2201	2400	-0.6
5-18-50	1336	1645	-0.2				
5-18-50	1646	2030	-0.4	5-31-50	0000	0230	-0.6
5-18-50	2031	2400	-0.6	5-31-50	0231	0408	-0.4
				5-31-50	0409	0535	-0.2
5-23-50	0935	1642	0.0	5-31-50	0536	0700	0.0
5-23-50	1643	1910	-0.2	5-31-50	0701	1225	+0.2
5-23-50	1911	2400	-0.4	5-31-50	1226	1400	0.0
				5-31-50	1401	1800	-0.2
5-24-50	0000	0732	-0.6	5-31-50	1801	2230	-0.4
5-24-50	0733	1050	-0.4	5-31-50	2231	2400	-0.6
5-24-50	1051	1410	-0.2				
5-24-50	1411	1625	0.0 <sup>(*)</sup>	6-1-50	0000	0355	-0.6
5-24-50	1626	1955	-0.2	6-1-50	0356	0542	-0.4
5-24-50	1956	2400	-0.4	6-1-50	0543	0700	-0.2
				6-1-50	0701	0835	0.0
5-25-50	0000	1000	-0.4	6-1-50	0836	1320	+0.2
5-25-50	1001	1335	-0.2	6-1-50	1321	1520	0.0
5-25-50	1336	1715	-0.0	6-1-50	1521	1750	-0.2
5-25-50	1716	2030	-0.2	6-1-50	1751	1900	-0.4
5-25-50	2031	2400	-0.4				
5-27-50	0800	1935	-0.2				
5-27-50	1936	2400	-0.4				

TIDE CORRECTIONS PROJECT CS-218

SHEETS PI-4150 - 8150 - 8250 and 16150

DATE	TIME		CORRECTION (101 - 800 Fms.)	DATE	TIME		CORRECTION (101 - 800 Fms.)
	From	To			From	To	
<del>5-12-50</del>	ENTIRE DAY		-0.5	5-25-50	0000	1230	-0.5
				5-25-50	1231	1830	0.0
5-13-50	0000	0545	-0.5	5-25-50	1831	2400	-0.5
5-13-50	0546	1110	0.0				
5-13-50	1111	2400	-0.5	6-26-50	0000	0900	-0.5
5-14-50	0000	0550	-0.5	5-27-50	0800	2400	-0.5
5-14-50	0551	1135	0.0				
5-14-50	1136	2000	-0.5	5-28-50	0000	0345	-0.5
				5-28-50	0346	1210	0.0
5-16-50	1414	2400	-0.5	5-28-50	1211	2400	-0.5
5-17-50	0000	0835	-0.5	5-29-50	0000	0350	-0.5
5-17-50	0836	1327	0.0	5-29-50	0351	1330	0.0
5-17-50	1328	2400	-0.5	5-29-50	1331	2400	-0.5
5-18-50	0000	0755	-0.5	5-30-50	0000	0435	-0.5
5-18-50	0756	1455	0.0	5-30-50	0436	1415	0.0
5-18-50	1456	2400	-0.5	5-30-50	1416	2400	-0.5
5-19-50	0000	0825	-0.5	5-31-50	0000	0505	-0.5
5-19-50	0826	1630	0.0	5-31-50	0506	1515	0.0
5-19-50	1631	2400	-0.5	5-31-50	1516	2400	-0.5
5-23-50	0000	0845	-0.5	6-1-50	0000	0635	-0.5
5-23-50	0846	1735	0.0	6-1-50	0636	1600	0.0
5-23-50	1736	2400	-0.5	6-1-50	1601	1900	-0.5
5-24-50	0000	1245	-0.5	6-2-50	0600	0800	-0.5
5-24-50	1246	1800	0.0	6-2-50	0801	1550	0.0
5-24-50	1801	2400	-0.5	6-2-50	1551	1700	-0.5

## APPROVAL SHEET TO ACCOMPANY

Survey H-7805

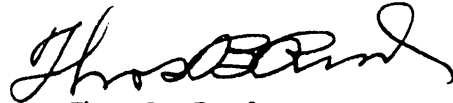
(Field No. PI-8250)

The field work was supervised closely and the boat sheet inspected daily.

The records and smooth sheet have been inspected and approved.

The survey is considered adequate.

*Copies of concurrent surveys by the ship Explorer were not available for comparison of junctions.*



Thos B. Reed  
CDR. USC & GS  
Comdg. Ship PIONEER

RHC

## TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

8 March 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 3  
volumes of sounding records for

HYDROGRAPHIC SHEET 7805

Locality Amchitka Pass, Aleutian Islands

Chief of Party: T. B. Reed in 1950

Plane of reference is mean lower low water, reading  
2.5 ft. on tide staff at Constantine Harbor  
9.9 ft. below B. M. 1 (1944)

Height of mean high water above plane of reference is 2.3 feet.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. H-7805

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>Aleutian Islands</u>			( " " )						2
<u>Amchitka Pass</u>			( " " )					USGB	3
									4
									5
				Names underlined in red are approved.					6
				3-5-51 L. Heck					7
									8
									9
									10
<u>Constantine Harbor</u>			(location of tide gage)					USGB	11
									12
									13
									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7805....

Records accompanying survey:

Boat sheets ..1...; sounding vols. .3....; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls .1 env;  
 special reports, etc. .1 Smooth Sheet, .1 Complete ship shoran.....  
 ..... plotting abstracts .....

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

Number of positions on sheet	472	472
Number of positions checked	17	54
Number of positions revised	0	2
Number of soundings revised (refers to depth only)	28	0
Number of soundings erroneously spaced	1	10
Number of signals erroneously plotted or transferred	0	0
Topographic details	Time 0	0
Junctions	Time 0	0
Verification of soundings from graphic record	Time 2	4

Preliminary Verif. <sup>Preliminary</sup> C. R. Helmer Total time 40 hrs Date 10/9/51

Verification by J. R. Lambus Total time 38 Date 10/28/51

Reviewed by G. F. Jordan Time 12 Date 10/19/51

Addendum to Review by Fannie B. Power Time 53 hrs Date Aug 31, 1965  
 (curves and junctions)

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7805

FIELD NO. PI-8250

Alaska-Aleutian Islands, Amchitka Pass

Project No. CS-218

Surveyed in May to June, 1950

Scale 1:80,000

Soundings:

Control:

NMC, NMC-2 and 808 Fathometers      Shoran

Chief of Party - T. B. Reed

Surveyed by - E. B. Latham, F. Natella, R. A. Marshall, P. A.  
Weber and J. O. Phillips

Protracted by - A. C. Holmes

Soundings plotted by - A. C. Holmes

Preliminary verification by - C. R. Helmer

Verified and inked by - - - *J.C. Chambers*

Reviewed by - G. F. Jordan, 19 October 1951

Inspected by - R. H. Carstens

*Depth curves and junctions inked by F.B. Poole 8-31-65*

1. Shoreline and Control

None of the shoreline of the Delarof Islands falls within the limits of this offshore survey.

The Shoran control for the survey is described in the Descriptive Report.

2. Depth Curves and Bottom Configuration

The depth curves can be adequately drawn for use in small-scale charting. The curves on the 49-fm. shoal in the middle of the survey are completely developed. East of the shoal, however, curves delineating the 500-fm. knoll and the 1000-fm. deep are not adequately developed.

The 49-fm. flat-top knoll, rising more than 2000 ft. above the submerged Aleutian Ridge, is the only prominent feature on the survey.



3. Crossline Depths

The depths at sounding line crossings are in adequate agreement.

4. Adjoining Surveys

An adequate junction was effected with H-7050 (1945) and H-7053 (1945) on the east. Contemporary surveys on the south, west, and north have not been received in the office. Project surveys on the southeast are to be made in the coming season.

5. Comparison with Prior Surveys

a. H-6906 (1935) on scale 1:150,000

Differences of as much as 100 fms. between depths on this Navy survey and the present survey are considered to be due to the reconnaissance nature of the prior work done by the U. S. S. OGLALA. No significant discrepancies worthy of discussion were noted.

b. H-7049 (1945) on scale 1:160,000

This is also a reconnaissance survey which contains the usual discrepancies caused by dead-reckoning control of the soundings. In the area of the 49-fm. shoal, however, there are no important differences with the present survey.

The present survey supersedes both of these prior surveys in the common area.

6. Comparison with Chart 8863 (Print of 51-8/13)

A. Hydrography

The charted hydrography originates principally with the prior surveys discussed above together with miscellaneous trackline soundings of a similar reconnaissance nature. Supplementary soundings were applied from the present survey prior to verification.

A reported 11-fm. sounding falling in 300-fm. depths in lat.  $51^{\circ} 19.7'$ , long.  $179^{\circ} 26.5'$ , and reported 40- and 42-fm. soundings falling in 200-fm. depths in lat.  $51^{\circ} 24'$ , long.  $179^{\circ} 32'$ , were disproved by the present survey and deleted on this last chart printing. These shoals are discussed below as a matter of record.

The 11-fm. depth was reported in Restricted Notice to Mariners No. 4 (1943) and was superseded by 10-fm. in Notice No. 12 (1943). Inasmuch as the reported position was dependent on the position of Amatignak Island, which was subsequently found to be in error, it is considered the shoal depth was obtained on the 49-fm. knoll on the present survey. Furthermore, it is considered unlikely that there are volcanic pinacles rising to 10-fm. depths on the truncated knoll.

The reported 40-fm. depth, uncorrected for draft, and the 42-fm. reduced depth originate with H.O. Notice to Mariners No. 12 (1945) and with Chart Letter No. 501 (1945), respectively. These reports originate with a report by the cableship SILVERADO. Development on the present survey discredits these reported depths.

B. Aids to Navigation

There are no charted aids to navigation in this off-shore Aleutian area.

7. Condition of the Survey

The survey has not been completely verified but has been spot verified in accordance with recently adopted procedure. A complete statement concerning the condition of the survey will be made after the survey is completely verified.


The spot verification revealed no deficiencies worthy of mention, except the complete absence of bottom characteristics.

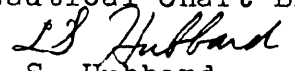
8. Compliance with Project Instructions


The survey adequately developed the prominent 49-fm. knoll in accordance with project instructions. As noted above, no bottom characteristics were obtained on this original basic survey.


9. Additional Field Work Recommended

This is a basic survey and no additional field work is recommended. However, attention is directed to the absence of bottom characteristics, and to inadequate development of the 500- and 1000-fm. depth curves east of the 49-fm. shoal mentioned in paragraph 2.

  
H. R. Edmonston  
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

ADDENDUM TO REVIEW

H-7805 (1950)

Verified and Inked by-----J. C. Chambers  
Review Addendum by-----F. B. Powers 8/30/65  
Inspected by-----R. H. Carstens

The verification of this survey has been completed. Soundings, depth curves, and junctions with verified surveys have been completely inked.

Junctions with Contemporary Surveys

Adequate junctions were effected with H-7050 (1945) and H-7053 (1945) on the east, and H-7978 (1952) on the south. The junctions with H-7891 (1950) on the north, west and south, and with H-7977 (1952) on the east will be considered in the review of those surveys.


Comparison with Chart 8863 (latest print date 9-30-63)

The charted hydrography originates with the present survey after preliminary verification and review. The charted depths are in agreement with the present survey.

Condition of Survey

- (a) Completion of verification and inking reveals that the smooth plotting was well done.
- (b) The Descriptive Report is complete and comprehensive.

Approved:

  
Lorne G. Taylor  
Chief, Nautical Chart  
Division

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-7805

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/21/51	8863	Risegari	Before <del>After</del> Verification and Review <i>Partially Appl.</i>
1/56	8863	Stegman	<del>Before</del> After <sup>preliminary</sup> Verification and Review <i>Completely</i>
5/20/57	9102	Charles Wattman	<del>Before</del> After <sup>preliminary</sup> Verification and Review <i>" "</i> <i>AMW</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			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.