

8473

Diag. Cht. No. 8862.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. EX-6158 Office No. H-8473

LOCALITY

State Alaska

General locality Aleutian Islands, Andreanof Group

Locality Offshore--South Side Atka Island

19 59

CHIEF OF PARTY

E. B. Brown

LIBRARY & ARCHIVES

DEC 2 1959

DATE

8473

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-8473

Field No. EX-6158

State Alaska

General locality Aleutian Islands, Andreanof Group

Locality Offshore--South Side Atka Islands

22 July--29 August 1958

Scale 1:60,000 Date of survey 2 June--9 July 1959

Instructions dated 16 October 1957 and supplements to 12 February 1959

Vessel USC&GSS EXPLORER

Chief of party G. C. Mast, E. B. Brown

G.C.Mast, L.F.Woodcock, H.D.Reed Jr., L.H.Thurman

Surveyed by E.B.Brown, J.C.Bull, N.E.Taylor, G.L.Short, W.L.Mobley, A.C.Korn

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

Fathograms scaled by Fathometer Readers, Junior Officers

Fathograms checked by Ship's Officers

Protracted by Ship's Officers

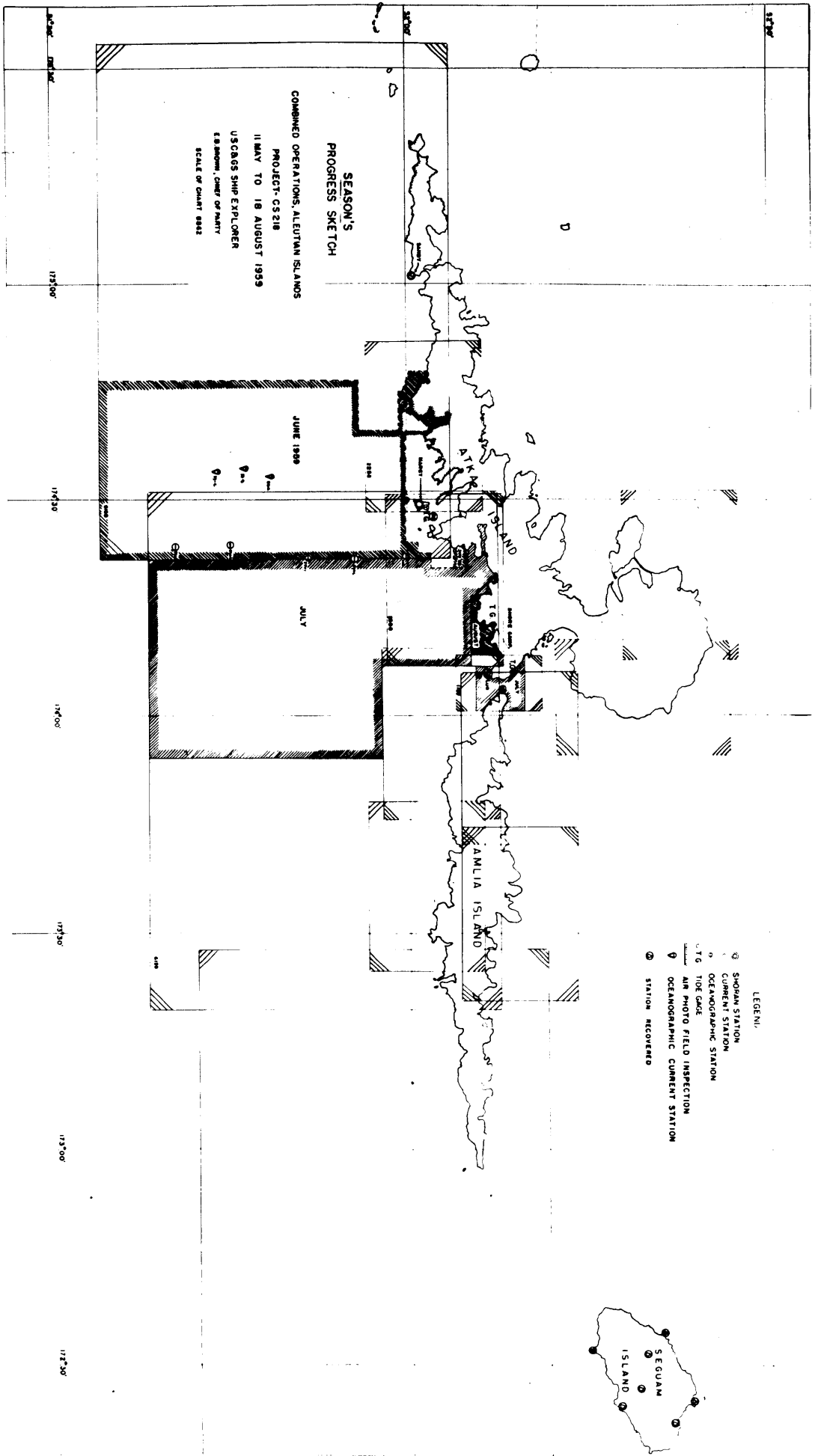
Soundings penciled by Will Connell, Jack M. Doherty

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

REMARKS:

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JHE



**SEASON'S
PROGRESS SKETCH**

COMBINED OPERATIONS, ALEUTIAN ISLANDS
 PROJECT- CS 218
 11 MAY TO 18 AUGUST 1959
 USCGS SHIP EXPLORER
 E.S. BROWN, CHIEF OF PARTY
 SCALE OF CHART 6842

JUNE 1959

JULY

- LEGEND:
- ① SHIPMAN STATION
 - ② CURRENT STATION
 - ③ OCEANOGRAPHIC STATION
 - ④ TIG TIDE GAUGE
 - ⑤ AIR PHOTO FIELD INSPECTION
 - ⑥ OCEANOGRAPHIC CURRENT STATION
 - ⑦ STATION RECOVERED



DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8473 (Field No. EX-6158)

Aleutian Islands, Alaska

Offshore - South Side Atka Island

Scale of Survey - 1:60,000

USC&GSS EXPLORER

1958 - G C MAST Comdg

1959 - E B BROWN Comdg

Surveyed by: G C Mast, L F Woodcock, H D Reed Jr., L D Thurman,
E B Brown, J C Bull, N E Taylor, G.L Short, W L Mobley, A C Korn

A. PROJECT:

This survey was executed in accordance with the following instructions:

1. Revised Instruction - Project GS-218 Aleutian Islands, Alaska, dated 16 October 1957.
2. Instructions - Processing Field Records All Hydrographic Survey Projects dated 29 January 1958.
3. Supplemental Instructions - Project CS-218 Aleutian Islands, Alaska (1959) dated 13 November 1958 with section of chart 8862.
4. Information on Procurement of Current Drogues and Field Procedures - Project CS-218, Aleutian Islands, Alaska (1959) dated 4 Feb 1959.
5. Supplemental Instructions - Project CS-218 Aleutian Islands, Alaska (1959) dated 12 February 1959.
6. Sailing Orders dated 11 March 1959.
7. Directors telegram dated 11 August 1959.
8. Sailing Orders dated 3 August 1959.

B. SURVEY LIMITS AND DATES:

This sheet covers the offshore area south of Atka Island and Atka Pass in the Aleutian Islands, Alaska.

Work on this sheet was done during the 1958 and 1959 field seasons. The 1958 work extended eastward to longitude $174^{\circ} 25' W$ and the 1959 work eastward to longitude $174^{\circ} 13' W$ to complete the sheet. The 1958 field work covered the period 22 July 1958 - 29 August 1958 and the 1959 field work was accomplished 2 June 1959 to 9 July 1959.

This survey junctions on the west with H-6898 USN (1:60,000) 1934 and H-8309 (1:60,000) 1956. Junctions with contemporary surveys is shown on the index of hydrographic sheets attached to this report.

C. VESSEL AND EQUIPMENT:

All hydrography on this survey was accomplished by the Ship EXPLORER,

operating at standard speed. The turning radius of the ship at 20-degree right or left rudder was 200 meters.

Soundings less than approximately 190 fathoms were recorded on 808 Fathometer No. 57-20. Edo Fathometer No. 4 and the Precision Depth Recorder No. 134 were used in greater depths.

D. TIDE AND CURRENT STATIONS:

Two portable automatic tide gages were installed to obtain reducers for this sheet. The 1958 reducers were derived from a gage near Atka Pass at Latitude $52^{\circ} 00.4'$ N. longitude $174^{\circ} 19.2'$ W. and the 1959 reducers were derived from a gage near the northeast end of Sagchudak Island at latitude $52^{\circ} 01.6'$ N. longitude $174^{\circ} 28.8'$ W.

See tide note attached to this report.

No current meter stations were observed within the limits of this survey, but offshore ocean currents were observed using parachute drogues released at approximately the following positions.

$\emptyset 51^{\circ} 47.7$	$\emptyset 51^{\circ} 45.0$	$\emptyset 51^{\circ} 43.3$
X $174^{\circ} 36.9$	X $174^{\circ} 34.1$	X $174^{\circ} 34.6$

See special report, Current Drogue Survey submitted 20 October 1959.

E. SMOOTH SHEET:

Permission was requested and granted to use 42 inch paper. Letter of permission dated 19 August 1959; 22/MEK, S-1-EX.

Because of a change in the position of most of the 1957 traverse stations on Atka Island, it was necessary to re-construct smooth sheet H-2473 (EX-6158), and replot all of the hydrography done in 1958.

The smooth sheet was projected and hand ruled aboard the Ship EXPLORER on 10 September 1959.

All shoran arcs were ruled using a beam compass and computed geographic positions on three azimuths from each station.

Positions 45K through 55K & position 57 & 58K, from survey H-8438, (1:20,000) 1957-58, are plotted on this sheet. Some of the hydrography on the H-8438 boat sheets extended beyond the smooth sheet limits; it was therefore necessary to plot this work on the sheets making a junction with sheet H-8438. The positions mentioned above are shoran-controlled, ship positions. Positions 45K through 55K represent the end of an east-west sounding line; positions 57K and 58K are the first two positions of a north-south line. The day letters are shown as "KA" on this sheet. This hydrography is located at latitude $51^{\circ} 54.8'$ N, between longitude $175^{\circ} 24.3'$ W and long. $175^{\circ} 30.2'$ W. These positions have been copied into Volume 4, pages 64 through 67, sheet EX-6158.

F. CONTROL STATIONS:

Six shoran stations were used for this survey. Station NEF was located in 1956 by traverse from triangulation station FEN (1956). Shoran station LAV was located over reference mark no. 2 of traverse station LAVA (1958). Shoran station SAN was located over traverse station SANDY (1957). Shoran station MAR was located over traverse station MARGO (1958). Shoran station MARCY was located on traverse station MARCY (1957). Shoran station LUG was located by the short-base method from traverse station SUSAN (1957). *Violet*
Green
Red
Blue
Brown
Orange

Shoran stations were plotted from geographic positions received from the Washington Office which had been adjusted, after the 1958 tellurometer traverse was computed.

H. SOUNDINGS:

All soundings in this survey were obtained with the graphic recorders listed in Section C of this report.

An abstract of phase corrections for the 808 graphic recorder are included in this report.

A draft correction of two fathoms was applied to soundings from the Precision Depth Recorder and 100 fathograms.

I. CONTROL OF HYDROGRAPHY:

All hydrography was controlled by shoran, using stations NEF, LAV, SAN, MAR, MARCY, and LUG.

Shoran corrections for the 1958 season were derived at the end of the season, and hence were not applied to the positions on the boat sheet. It was found that the Shoran corrections for the Ship EXPLORER were generally very small—not exceeding 0.020 statute miles (about 0.5 mm on the boat sheet). Most of the positions on this sheet would have either a 0.010 st. mi. correction (about 0.27 mm) or a zero correction. It can be seen that not applying shoran corrections for the 1958 seasons work on this sheet does not greatly effect the accuracy of the hydrography.

A special shoran report for the 1958 season was forwarded to the Director.

Shoran corrections for 1959 work were derived during the season and were applied to the positions on both boat and smooth sheets.

A special shoran report for the 1959 season was submitted 22 October 1959 to the Director.

See shoran abstract attached to this report.

J. ADEQUACY OF SURVEY:

This sheet is complete and adequate for charting. No prior surveys of the area exist.

An adequate junction is made on the western limit of this sheet with surveys H-6898 USN (1:60,000) 1934 and H-8309 (1:60,000) 1956. No holidays exist in this area, and depth curves can be adequately drawn.

The junction with surveys H-8438 (1:20,000) 1957 and H-8439 (1:20,000) 1958 (along the northern limit of this sheet) are complete and adequate.

The junction with survey EX-6159 (1:60,000) 1959 (along the eastern limit of this sheet) is complete and adequate.

There are no survey junctions on the southern limit of this sheet.

K. CROSSLINES:

Crosslines comprise about 9% of the total miles of sounding lines. All crossings are in good agreement, except the following:

1. At $\phi 51^{\circ} 54'.9$ X $174^{\circ} 23'.8$, the line 18Q-19Q crosses the line 40S-41S with a difference of 6 fathoms in depths of 50-60 fathoms. This is an area of very uneven bottom and the difference may be due to this fact or to a slight shift in position of the sounding line.

2. At $\phi 51^{\circ} 50'.2$ X $174^{\circ} 36'.6$ the line 102L-103L crosses the line 89M-90M with a difference of 6 fathoms in general depths of 120 fathoms. The line 102L-103L is normal to the depth curves on a steep slope and the line 89M-90M is parallel to the depth curve and this difference may be due to echo from the steep bottom slope.

L. COMPARISON WITH PRIOR SURVEYS:

The only prior surveys in the area of this sheet are surveys H-6898 USN (1:60,000) 1934 and H-8309 (1:60,000) 1956 at the western limits of this sheet.

See section J above.

M. COMPARISON WITH CHART:

This survey was compared with C&GS chart 8362, 2nd edition, Jan 1944 (corrected through N.M. 13, 1957). The following discrepancies in soundings are noted:

<u>Position of Sounding on Chart</u>	<u>Charted Depth</u>	<u>Approximate Depth from Present Survey</u>	<u>% Discrepancy in Charted Depth</u>
1. Lat. $51^{\circ} 16.75' N$ Long. $175^{\circ} 15.6' W$	108 fm.	170 fm.	- 57

<u>Position of Sounding on Chart</u>	<u>Charted Depth</u>	<u>Approximate Depth from Present Survey</u>	<u>% Discrepancy in Charted Depth</u>
2. Lat. 51° 44.2'N Long. 175° 15.5'W	359 fm.	260 fm.	+ 28
3. Lat. 51° 45.5'N Long. 175° 06.7'W	122 fm.	235 fm.	- 93
4. Lat. 51° 44.2'N Long. 175° 03.4'W	400 fm.	300 fm.	+ 25 ✓
5. Lat. 51° 44.2'N Long. 175° 58.0'W	244 fm.	330 fm.	- 25
6. Lat. 51° 44.4'N Long. 175° 50.5'W	480 fm.	360 fm.	+ 25
7. Lat. 51° 43.0'N Long. 175° 49.2'W	351 fm.	700 fm.	- 99
8. Lat. 51° 49.4'N Long. 174° 22.8'W	584 fm.	300 fm.	+ 49
9. Lat. 51° 44.4'N Long. 174° 22.3'W	1600 fm.	1300 fm.	+ 19
10. Lat. 51° 44.3'N Long. 174° 26.6'W	1360 fm.	850 fm.	+ 37 ✓
11. Lat. 51° 44.4'N Long. 174° 30.4'W	880 fm.	700 fm.	+ 21 ✓
12. Lat. 51° 44.4'N Long. 174° 34.6'W	880 fm.	700 fm.	+ 21 ✓
13. Lat. 51° 44.4'N Long. 174° 38.4'W	720 fm.	600 fm.	+ 17 ✓
14. Lat. 51° 43.4'N Long. 174° 40.1'W	707 fm.	800 fm.	- 13
15. Lat. 51° 40.5'N Long. 174° 31.5'W	951 fm.	1200 fm.	- 26
16. Lat. 51° 41.0'N Long. 174° 28.6'W	1760 fm.	1300 fm.	+ 26
17. Lat. 51° 41.5'N Long. 174° 24.5'W	2000 fm.	1600 fm.	+ 20
18. Lat. 51° 39.3'N Long. 174° 22.6'W	1414 fm.	1700 fm.	- 20
19. Lat. 51° 37.2'N Long. 174° 25.4'W	2160 fm.	1800 fm.	+ 17 ✓
20. Lat. 51° 36.5'N Long. 174° 30.8'W	2080 fm.	1900 fm.	+ 10 ✓

<u>Position of Sounding on Chart</u>	<u>Charted Depth</u>	<u>Approximate Depth from Present Survey</u>	<u>% Discrepancy in Charted Depth</u>
21. Lat. 51° 36.1'N Long. 174° 36.4'W	2000 fm.	1700 fm.	+ 15
22. Lat. 51° 35.5'N Long. 174° 43.0'W	2160 fm.	1850 fm.	+ 14

It is recommended that the above charted depths be deleted or corrected.

All other soundings on the chart in the area of this survey are in good agreement with the present survey.

N. COAST PILOT INFORMATION:

Moderate tide rips were experienced on 22 July and 24 July 1958 ("A" and "B" days) in an area extending from latitude 51° 49' N to the northern limit of the survey and from longitude 175° 16' W to the western limit of the survey. These tide rips are designated by symbol and legend on the smooth sheet.

See Coast Pilot revision notes forwarded to the Washington Office 26 October 1959.

T. BY-PRODUCT INFORMATION:

Bathythermograph observations were taken at positions 32D, 183D, 166E, 30G, and 88G during the 1958 season and at various locations during the 1959 field season.

Five oceanographic stations were observed during 1959 south of Atka Island along approximate longitude 174° 20' W.

Offshore ocean currents were observed with parachute drogues at three stations south of Atka Island.

Locations of oceanographic and drogue stations are shown on the smooth sheet.

Z. DATA APPLICABLE:

The following records have been forwarded to the Director:

<u>1958 Season</u>	<u>Date forwarded</u>
1. Sounding volumes 1 thru 4	12/23/58
2. Fathograms, 7 envelopes	12/22/58
3. Tide marigram (Atka Pass) Nos. 1 thru 10	8/19/58
4. Tide marigram (Atka Pass) Nos. 11 thru 15	9/24/58
5. Seasons Report	10/31/58
6. Shoran Correction Report	1/ 9/59
7. B. T. Slides	10/ 2/58
8. Oceanographic Log Sheets B.	10/ 2/58
9. Control Identification Atka Island	9/12/58
10. Magnetic Declination (MARCY 1957)	9/12/58
11. <u>Tellurometer Traverse</u>	7/29/58

<u>1959 Season</u>	<u>Date forwarded</u>
1. Smooth Sheet	11/12/59
2. Sounding Volumes 1 thru 7	11/13/59
3. Shoran plotting sheets	11/13/59
4. Fathograms, 1 envelope	11/13/59
5. Tide Marigrams & Leveling Records, Sagchudak Is. 1 thru 13	8/8 /59
6. Tide Marigrams, Sagchudak Island 14 thru 20	8/10/59
7. Current Drogue Special Report	8 /20/59
8. Tide Marigrams Sagchudak Island 21 thru 27	9/11/59
9. Oceanographic Station Data	9/28/59
10. Seasons Report	10/13/59
11. Shoran Report	10/22/59
12. Notes for Revision of Coast Pilot	10/26/59

Will Connell

WILL CONNELL
ENS C&GS

J.M. Doherty

J M DOHERTY
ENS C&GS

STATISTICS FOR HYDROGRAPHIC SURVEY H-8473

1958 - 1959

USC&GS EXPLORER

Project CS-218

<u>Volume</u>	<u>Day Letter</u>	<u>DATE</u>	<u>Number of Positions</u>	<u>Nautical Miles Sdg. Line</u>
1	A	7/22/58	76	56.4
2	B	7/24/58	61	52.2
1 & 2	C	8/ 2/58	164	105.5
2 & 3	D	8/ 7/58	206	144.8
3 & 4	E	8/ 8/ 58	206	140.2
4	F	8/28/58	42	32.8
4	G	8/29/58	116	85.3
5	H	6/23/59	49	36.0
5	J	6/ 4/59	45	29.2
5	K	6/ 7/59	30	21.5
5	L	6/16/59	135	101.5
6	M	6/17/59	101	59.6
6	N	6/20/59	108	77.6
6	P	6/21/59	51	25.7
6	Q	6/22/59	159	82.6
7	R	6/23/59	98	44.4
7	S	7/ 9/59	62	31.0
Totals			1709	1126.3

Area Surveyed = 1095.4 Square Nautical miles

TIDE NOTE

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8473 (EX-6158)

1958 - 1959

USC&GSS EXPLORER

Tide reducers used on this sheet were derived from the 1958 Atka Pass tide gage, located at latitude $52^{\circ} 00.4'$ N, longitude $175^{\circ} 19.2'$ W. Mean-lower-low-water on this staff was furnished by the Washington Office and is 1.2 feet.

The gage was inoperative on 7 August ("D" day) and 8 August ("E" day). Hourly heights for these days were furnished by the Washington Office. No time correction was applied to tide reducers scaled from the marigrams.

The tide reducers used for the 1959 work were derived from the Sagchudak Island tide gage, located at latitude $52^{\circ} 01.6'$ N, longitude $174^{\circ} 28.8'$ W. This tide gage was used on the survey extending from longitude $174^{\circ} 24'$ W to longitude $174^{\circ} 47'$ W, and 1959 crosslines which extend into the 1958 work.

The mean-lower-low-water on this staff was furnished by the Washington Office and is 3.7 feet.

FATHOMETER PHASE COMPARISONS

808 FATHOMETER NO, 57-20

1958 - 1959 Season

USC&GSS EXPLORER

(All depths in fathoms)

1958 Season

SUMMARY:

Correction to soundings on B scale equals 0.31 fm. (-0.3)
Correction to soundings on C scale equals 1.89 fm. (-1.9)
Correction to soundings on D scale equals 2.59 fm. (-2.6)
Correction to soundings on E scale equals 2.59 fm. (-2.6)

The fathograms on which these phase comparisons are recorded are included in the envelope containing Ship EXPLORER fathograms for "F" and "G" days, sheet H-8438 (EX-2357)

1959 Season

SUMMARY:

Correction to soundings on A scale equals -0.0 fm.
Correction to soundings on B scale equals ~~0.3~~ fm.
Correction to soundings on C scale equals -0.2 fm.
Correction to soundings on D scale equals -0.5 fm.
Correction to soundings on E scale equals -0.3 fm.

Fathograms containing phase comparisons are included in the envelope containing Ship EXPLORER fathograms for sheet EX-6158, H8473, sent to the Washington office November 13, 1959.

ABSTRACT OF SHORAN CORRECTIONS

1959 Season

Ship EXPLORER

MARCH

<u>Dist.</u>	<u>Corr.</u>
0.0-3.5	0.010
3.5-7.4	0.000
7.4-11.3	-0.010
11.3-15.1	-0.030
15.1-19.0	-0.030
19.0-22.9	-0.040
22.9-26.8	-0.050
26.8-30.7	-0.060

LUG

<u>Dist.</u>	<u>Corr.</u>
0.0-2.9	-0.010
2.9-8.4	-0.020
8.4-13.9	-0.030
13.9-19.6	-0.040
19.6-25.1	-0.050
25.1-30.7	-0.060

SANDY Ind. #1176

<u>Dist.</u>	<u>Corr.</u>
3.9-14.5	-0.030
14.5-20.1	-0.040
20.1-25.7	-0.050
25.7-31.2	-0.060
31.2-36.8	-0.070
36.8-42.3	-0.080

SANDY Ind. #572

<u>Dist.</u>	<u>Corr.</u>
10.0-15.5	0.000
15.5-21.1	-0.010
21.1-26.7	-0.020
26.7-32.2	-0.030
32.2-37.8	-0.040
37.8-43.3	-0.050

NOTE: Use Ind. #572 from beginning of working day, 16 June 1959 to 0959 18 June 1959. Use Ind. #1176 for all others.

APPROVAL SHEET

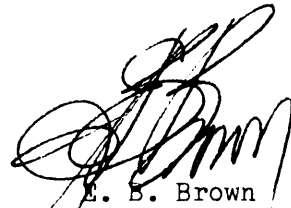
HYDROGRAPHIC SURVEY H-3473

The 1958 field work was accomplished under my supervision. The smooth sheet and sounding records have been examined and are approved.

G. C. Mast
G. C. Mast
CDR, O&GS
Comdg. Ship EXPLORER

APPROVAL SHEET
HYDROGRAPHIC SURVEY H-8473

The 1959 field work was accomplished under my supervision. The smooth sheet and sounding records have been examined and are approved. The smooth sheet has been judged to be complete and adequate.



E. B. Brown
Capt. C&GS
Comdg. Ship EXPLORER

GEOGRAPHIC NAMES
Survey No. H-8473

Name on Survey	Source										K	B&N	
	A	B	C	D	E	F	G	H	I	J			
ATKA ISLAND (TITLE)	8862											✓	1
ANDREANOF GROUP (TITLE)	"												2
													3
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George H. Bacon
U.S. Navy Station
January 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8473...

Records accompanying survey: Smooth sheets .1...;
 boat sheets .1...; sounding vols. .7...; wire drag vols.;
 Descriptive Reports .1...; graphic recorder envelopes .5...;
 special reports, etc. 1-Cahier, Shore Abstracts,.....

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

Number of positions on sheet
 Number of positions checked
 Number of positions revised
 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
 Verification of soundings from
 graphic record Time
 Special adjustments Time

Verification by Total time Date

Reviewed by Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8473

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

US COMMISSION DC

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

1 February 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 8473

Locality Atka Island, Alaska

E. B. Brown)
Chief of Party: G. C. Mast) in 1958-1959
Plane of reference is mean lower low water, reading
1.2 ft. on tide staff at Atka Pass
10.2 ft. below B. M. 1 (1958)

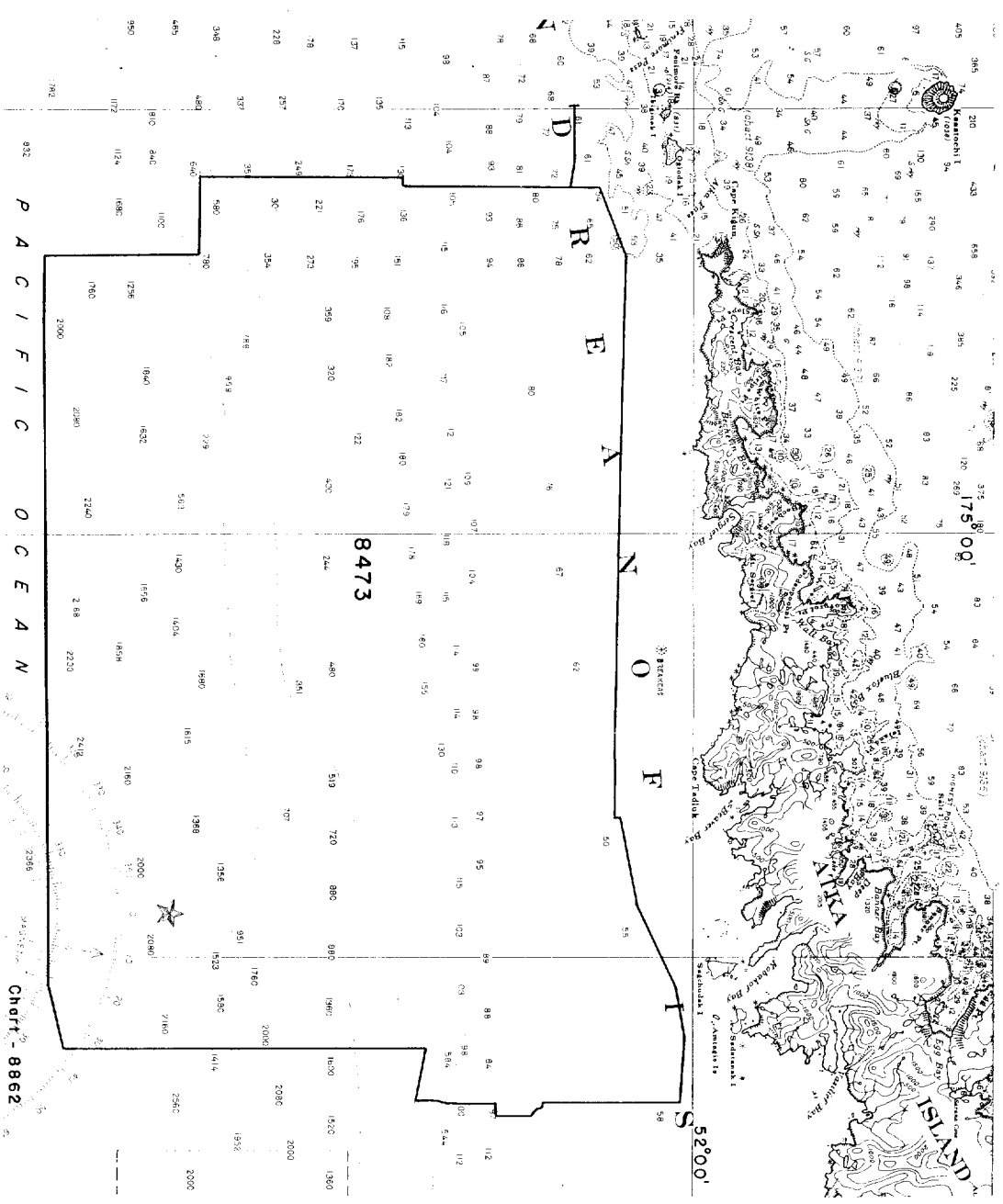
3.7 ft. on tide staff at Sagehudak Island
8.8 ft. below B.M. 2 (1959)

Height of mean high water above plane of reference is:
Atka Pass 4.6 ft.
Sagchudak I. 4.5 ft.

Condition of records satisfactory except as noted below:

William Shapiro
Chief, Tides Branch

~~Chief, Division of Tides and Currents~~



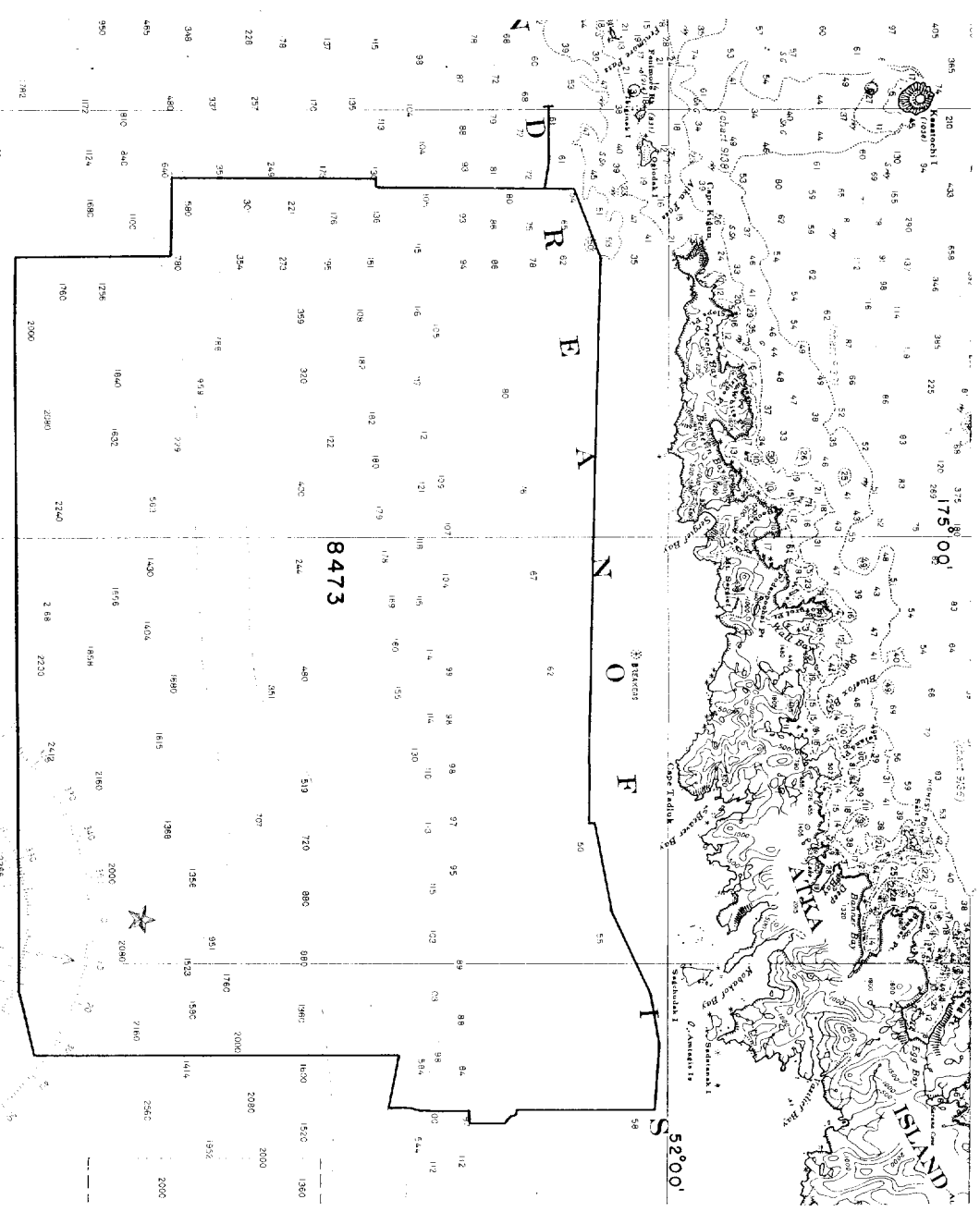
P A C I F I C O C E A N

Chart - 8862

8473

R E A N O F

I S L A N D



P A C I F I C O C E A N

Chart - 8862

8473

R E A N O F

I S L A N D

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8473

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
27 Feb 61	9102	<i>E. M. Prosser</i>	Comp appl thru chart 8862 (by ^{prev 10064} the app to chart) before the Verification and Review Verified via dwg 8862 #6 and smoothsheet before V&R ⁸⁸⁶² V&R ^{2nd}
3-18-61	9000	<i>J. M. Albert</i>	Before After Verification and Review via dwg 9102
7/18/77	9102	<i>M. Sager</i>	PREV APPLIED THRU 8862 CLASS I Before After Verification and Review EXAM, NO CORRECTION ^{Partly} fully applied
10-28-77	8862	<i>M. Sager</i>	Before After Verification and Review REEXAMINED - HYDRO was PREVIOUSLY COMPLETELY APPLIED THRU BP 58456 Added (6) snags, minor changes to fm curve. Final application
3/25/80	16484	<i>H. J. Borawski</i>	Before After Verification and Review (Category I) Added shoaler snags and fill snags as necessary. Consider this a final application
3/26/80	16486	<i>H. J. Borawski</i>	Before After Verification and Review (Category I) App'd thru 16484 in common area and directly from survey in non-overlap areas. Consider this a final application
3/27/80	16471	<i>H. J. Borawski</i>	Before After Verification and Review (Category I) App'd thru 16484-16486 to reflect shoaler conditions + fill snags, directly from survey in non-overlap areas. Consider final appl
			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.