8057

Diag. Cht. No. 8863-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. EX-6253 *Office No.* H-8057

LOCALITY

State Alaska

General locality Aleutian Islands, Andreanof Islands

Locality North Side of Tanaga and Kanaga Islands

19 53 - 54

CHIEF OF PARTY

S. B. Grenell

LIBRARY & ARCHIVES

DATE May 24, 1954 & Febuary 1, 1955

B-1870-1 (1)

8057

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-8057

Field No. EX-6253

State Alaska.

General locality Aleutian Islands, Andreanof Islands

Locality North side of Tanaga and Kanaga Islands

Scale 1:60,000 Date of survey 6/5/53 to 9/12/53 5/14/54 to 6/26/54

Instructions dated 19 March 1952, 20 February 1953, 5 August 1952, 6 April 1953, 23 December 1953.

Vessel USC&GSS EXPLORER

Chief of party S. B. Grenell

Surveyed by S. B. Grenell, F. G. Johnson, J. C. Tison, Jr., H. G. Conerly and K. B. Jeffers

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

Fathograms scaled by Fathometer readers

Fathograms checked by H. G. Conerly, J. H. Chopy, V. Engustian, H. A. Garcia, F. J. Tucker, Jr., K. B. Jeffers, J. C. Tison, Jr., and S. B. Grenell

Protracted by E. R. Stone and J. C. Tison, Jr.

Soundings penciled by E. R. Stone and J. C. Tison, Jr.

Soundings in fathoms ~~feet~~ at ~~MEAN~~ MLLW } and are based on a velocity of sound of 800 fms./sec.

REMARKS: Surveyed during the 1953 and 1954 field seasons. The descriptive report is submitted in two parts. Part I covering the 1953 work and Part II the 1954 work.

U. S. GOVERNMENT PRINTING OFFICE 777032

282

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-8057

Field No. EX-6253

State Alaska

General locality Aleutian Islands

Locality North side of Tanaga and Kanaga Islands

Scale 1:60,000 Date of survey 6/5/53 to 9/12/53
5/14/54 to 6/26/54

Instructions dated 19 March 1952, 20 February 1953, 5 August 1952, 6 April 1953,
23 December 1953.

Vessel USC&GSS EXPLORER

Chief of party S. B. Grenell

Surveyed by S. B. Grenell, F. G. Johnson, J. C. Tison, Jr., H. G. Conerly,
K. B. Jeffers.

Soundings taken by ~~fathometer~~, graphic recorder, ~~handlead~~, wire

Fathograms scaled by Fathometer readers

Fathograms checked by H. G. Conerly, J. N. Chopy, V. Engustian, H. A. Garcia,
K. B. Jeffers, J. C. Tison, Jr., S. B. Grenell. and F. J. Tucker, Jr.

Protracted by E. R. Stone & J. C. Tison, Jr.

Soundings penciled by E. R. Stone & J. C. Tison, Jr.

Soundings in fathoms ~~feet~~ at ~~XXXX~~ MLLW } and are based on a velocity of sound of 800 fms./sec.

REMARKS: Surveyed during the 1953 and 1954 field seasons.
The descriptive report is submitted in two parts, Part I
covering the 1953 work and Part II the 1954 work.

U. S. GOVERNMENT PRINTING OFFICE 693019

Part I

DESCRIPTIVE REPORT
To Accompany
Hydrographic Sheet H-8057
Field Number EX-6253
Tanaga and Kanaga Islands, Alaska
1953
Scale 1:60,000
USC&GSS EXPLORER S. B. Grenell, Commanding

Surveyed by: S. B. Grenell, F. G. Johnson, J. C. Tison, Jr., H. G. Conerly

A. PROJECT

This survey was executed in accordance with the following instructions for Project CS-218:

Original Instructions dated 19 March 1952.
Supplemental Instructions dated 20 February 1953.
Modification of Instructions dated 5 August 1952.
Letter No. 22/MEK, S-1-EX, dated 6 April 1953, subject: Clarification of Instructions.
Supplemental Instructions dated 23 December 1953.

B. SURVEY LIMITS AND DATES

The portion of this survey completed in 1953 includes offshore hydrography west of Cape Sajaka on the north side of Tanaga Island, in Kanaga Sound and in the pass between Bobrof and Tanaga Islands, between inshore launch surveys and offshore EPI controlled surveys of 1952.

Date of beginning survey - 5 June 1953.
Date of ending survey - 12 September 1953.

Junctions with prior surveys: | See PH of Review

H-6931 (1943) - Kanaga Sound
H-7977 (1952) - off Cape Sajaka
H-7978 (1952) - north limits of sheet

Junctions with comtemporary surveys:

EX-2253 (H-8052) Cape Sajaka east to Falls Point
EX-2353 (H-8053) Kanaga Pass
EX-2453 (H-8054) Falls Point to Cape Sudak

There is no inshore survey from Cape Sudak to Barnes Point, from Northwest Point, Kanaga Island to the east limit of this survey or around Bobrof Island. [H-8141 (1954)] | See PB 1954 Desc. Rpt.

C. VESSEL AND EQUIPMENT

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

Turning radius of ship (from 1952 descriptive report):

Full right rudder - 360 meters
Full left rudder - 275 meters

EDO fathometer No. 4 was in operation for all hydrography. 808 fathometers Nos. 72-S and 113-S were used to the limit of their range - about 150 fathoms.

Sounding machine No. H-117 was used for wire soundings taken as bottom samples were obtained.

D. TIDE AND CURRENT STATIONS

Portable tide gages were maintained at Tanaga Bay, Gusty Bay and Barabara Island.

The tide reducers were obtained from data from the different tide stations as follows:

Tanaga Bay - A Day (Cape Sajaka to Tangent Point).

Gusty Bay - B, C, D, E, F, and G Days (Tangent Point to a line from the south end of Bobrof Island to Barnes Point (approximately).

Barabara Island - H, J, K, L, M and N Days (south and southeast of the above line.

No time or range corrections were applied.

There are no current stations in the area of this survey.
Current stations in 1954 (IPD, 1954 Desc. Rpt)

E. SMOOTH SHEET

The smooth sheet projection and shoran arcs were made by hand by the Seattle Processing Office.

Triangulation stations were plotted by the Seattle Processing Office.

Topographic stations for which geographic positions were computed were plotted from the geographic positions by the Seattle Processing Office. See Par. F., Control Stations.

Positions of other topographic stations were scaled from 1:20,000 scale graphic control manuscripts and plotted on the smooth sheet from the scaled positions.

Shoreline pencilled on the smooth sheet was reduced by projector from 1:20,000 scale manuscripts direct on the smooth sheet. Shoreline was inked in Washington Office.

F. CONTROL STATIONS

Triangulation stations were established by G. C. Mattison in 1943 and by this party in 1953.

Geographic positions of topographic stations CAW, EGO, GUST, SAL, BETA, SPAR, BARABARA and DEN were computed from fourth-order theodolite observations. See also topographic manuscripts T-9923, T-9924, T-9927 thru T-9930.

Other topographic stations are photo-hydro stations located by photogrammetric methods on Manuscripts T-9921 thru T-9923, T-9927 thru T-9931 from 1953 field inspection data.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topography on Tanaga Island are from photogrammetric compilation of manuscripts T-9921 thru T-9923, T-9927 thru T-9931 from 1953 field inspection data. See TP1 of Review

Shoreline and topography on Kanaga Island are from photogrammetric compilation of manuscripts T-9932 and T-9937 thru T-9939 from 1953 field inspection data.

Shoreline on the boat sheet was transferred by projector from charts. The north side of Tanaga Island was corrected to agree with preliminary manuscripts RS-426.

H. SOUNDINGS

All soundings on sounding lines were measured with echo sounding equipment listed in par. C. See "Special Report on Fathometer Corrections - Ship EXPLORER - 1953." Sdgs between pos. 33-43 B day, H-8052 (1953) which fell off limits of H-8052 were plotted on H-8057. (Lat 51°53, Long. 178°16')

Wire soundings were obtained at detached positions as bottom samples were obtained.

I. CONTROL OF HYDROGRAPHY.

Hydrography was controlled by shoran using stations DEN and BARA in the area in Kanaga Sound south of a line from about 51-48, 177-40 to 51-54 to 177-20.

All other hydrography was controlled by visual sextant fixes on shore signals.

J. ADEQUACY OF SURVEY

The portion of this survey completed in 1953 is considered complete and adequate for charting and complies with the Project Instructions and the Hydrographic Manual. The unsurveyed area in the northeast part of the sheet will be completed in 1954. (See Desc. Rpt. 1954)

Junctions with adjoining surveys H-6931 (1943), H-7977 (1952) and H-7978 (1952) are satisfactory and depth curves can be adequately drawn. see P4 of Review

Comparisons with H-8052 (1953), H-8053 (1953) and H-8054 (1953) will be made on those sheets.

There are no holidays.

K. CROSSLINES

Crosslines were run to the extent of about 6% of the regular system of sounding lines. There are no large discrepancies at crossings which will move depth curves appreciably.

L. COMPARISON WITH PRIOR SURVEYS

The only prior survey within the limits of this survey is reconnaissance survey H-6778 (1943). Kanaga Sound and vicinity on H-6778 was completely resurveyed and this survey should supersede H-6778 in the common area. Soundings in general are in close agreement. see P5 of Review

On Preliminary Review of Chart 8863 Item 26 was not investigated. Charted sdg 5'35 Lat. 51°54.5', long. 177° 31.3', falls in comparable depths on H-8057

Item 27 - a 75 fathom shoal at 51-51.7, 177-28.5, was further developed with a least depth of 66 fathoms between positions 69 D to 70 D.

M. COMPARISON WITH CHART

A comparison was made with the following charts:

Chart 9145, print date 8/13/51.
Chart 9146, print date 8/27/51.
Chart 8863, print date 1/14/52.

All soundings on Chart 9145 in the common area appear to be from H-6778 (1943) except those along the north edge of the chart.

Soundings along the north edge of charts 9145 and 9146 appear to be charted too far north, but appear to be about correct in relation to the charted shoreline which at Bumpy Point is charted about ½ mile north of its true position.

Comp. with Charts 9145 and 9146 deferred pending printing of Reconstructed charts. 10-7-53 I. M. Z.

Soundings on Chart 8863, in the area between Charts 9145 and 9193 do not appear to be from H-6778. Soundings on Chart 8863 are in reasonably close agreement with 1953 hydrography.

It is recommended that soundings on this survey supersede all charted soundings in the common area.

N. DANGERS AND SHOALS

This is an offshore survey and no dangers were found.

A least depth of 66 fathoms was found on a shoal at 51-51.7, 177-28.3, Pos. 69 D to 70 D. See Par. L.

O. COAST PILOT INFORMATION

There are no anchorages in the area of this survey. See Special Report on Coast Pilot Notes.

P. AIDS TO NAVIGATION

No aids to navigation, bridges, overhead or submerged cables exist within the limits of this survey.

Q. LANDMARKS FOR CHARTS

This is an offshore survey. See inshore surveys, H-8052, H-8053 and H-8054 for landmarks in the area.

R. GEOGRAPHIC NAMES

See "Special Report on Geographic Names - Tanaga and Kanaga Islands - USC&GSS EXPLORER - Season 1953".

New names recommended in Special Report on Geographic Names - 1953:

Tangent Point
Falls Point
Ribbon Falls
Kanaga Sound
Northwest Point

all of these names have been recorded. 854 - L. Heck

Z. TABULATION OF APPLICABLE DATA

Data forwarded with this report:

Smooth Sheet H-8057
5 Sounding Volumes, Vols. 1 thru 5.
1 Envelope fathograms
12 Sheets Shoran Plotting Abstract
2 Tracings of junction surveys H-7977 (1952) and H-7978 (1952).
Boat Sheet EX-6253 and Sounding Volume No. 6 will be retained on the EXPLORER for completion of the survey in 1954.

Data forwarded separately:

1. Field Inspection Report - Maps T-9921 thru T-9923, T-9927 thru T-9931, T-9935 thru T-9937 and T-9942 - Tanaga Island, Alaska - Ship EXPLORER - 1953 forwarded to Washington Office 25 September 1953.

2. Field Inspection Report - Maps T-9932 and T-9937 (part) thru T-9939 - Kanaga Island Alaska - Ship EXPLORER - 1953 forwarded to Washington Office 23 November 1953.

3. Triangulation data forwarded to Washington Office 7 December 1953.

4. Tide data forwarded to Washington Office 14 September 1953.

5. Special Report on Shoran - Ship EXPLORER - 1953.

6. Special Report on Fathometer Corrections - Ship EXPLORER - 1953. (filed in Library)

7. Special Report on Geographic Names - Tanaga and Kanaga Islands - 1953 forwarded to Washington Office 30 November 1953.

8. Coast Pilot Notes - U. S. Coast Pilot - Alaska Part II - Yakutat Bay to Arctic Ocean - Ship EXPLORER - 1953 forwarded to Washington Office 27 November 1953.

9. A tracing of soundings from this survey on a 1:20,000 scale is furnished with H-8053 (1953) for a comparison with that survey and H-6931 (1943).

Additional applicable data:

Topographic manuscripts T-9921 thru T-9923, T-9927 thru T-9931, T-9937 and T-9938. Compiled from 1953 field inspection data.

Respectfully submitted

E. R. Stone

E. R. Stone
Ensign, USC&GS

Tide Reducers
for
Hydrographic Sheet (Field No. EX-6253) Reg. H-8057

Date	Unit Working	Tanaga Bay Reducers	
June 5	Ship	-0.3 fm	0800-1200
		-0.2 fm	1200-1340
		-0.1 fm	1340-1640
		-0.2 fm	1640-1800
		-0.3 fm	1800-1840
		-0.4 fm	1840-1940
June 27	Ship	Gusty Bay Reducers	
		+0.2 fm	0810-1245
		+0.1 fm	1245-1350
		0.0 fm	1350-1445
		-0.1 fm	1445-1535
		-0.2 fm	1535-1635
		-0.3 fm	1635-1750
		-0.4 fm	1750-2000
June 28	Ship	0.0 fm	0735-0818
		+0.1 fm	0819-0911
		+0.2 fm	0911-1325
		+0.1 fm	1325-1425
		0.0 fm	1425-1520
		-0.1 fm	1520-1615
		-0.2 fm	1615-1715
		-0.3 fm	1715-1835
		-0.4 fm	1835-2200
July 7	Ship	+0.1 fm	0800-0925
		0.0 fm	0925-1030
		-0.1 fm	1030-1125
		-0.2 fm	1125-1220
		-0.3 fm	1220-1330
		-0.4 fm	1330-1800
		-0.5 fm	1800-2000

sheet 6253 * (2

July 17	Ship	Gusty Bay Reducers
		-0.3 fm 0800-1100
		-0.2 fm 1100-1630
		-0.3 fm 1630-1800
		-0.4 fm 1800-2000

July 24	Ship	
		+0.1 fm 0800-1100
		0.0 fm 1100-1205
		-0.1 fm 1205-1315
		-0.2 fm 1315-1425
		-0.3 fm 1425-1545
		-0.4 fm 1545-1830
		-0.5 fm 1830-2100

July 25	Ship	
		+0.2 fm 0800-1050
		+0.1 fm 1050-1210
		0.0 fm 1210-1300
		-0.1 fm 1300-1410
		-0.2 fm 1410-1520
		-0.3 fm 1520-1700
		-0.4 fm 1700-2030

July 25	Ship	Gusty Bay Reducers	
		+0.2 fm	0800-1050
		+0.1 fm	1050-1210
		0.0 fm	1210-1300
		-0.1 fm	1300-1410
		-0.2 fm	1410-1520
		-0.3 fm	1520-1700
		-0.4 fm	1700-2030

Aug. 17	Ship	Barabara Reducers	
		-0.2 fm	0700-0825
		-0.3 fm	0825-1020
		-0.4 fm	1020-1700
		-0.5 fm	1700-2230

Aug. 18	Ship		
		-0.2 fm	0800-0925
		-0.3 fm	0925-1100
		-0.4 fm	1100-1700
		-0.5 fm	1700-2300

Aug. 23	Ship		
		+0.1 fm	0650-1000
		0.0 fm	1000-1050
		-0.1 fm	1050-1140
		-0.2 fm	1140-1230
		-0.3 fm	1230-1315
		-0.4 fm	1315-1415
		-0.5 fm	1415-2120

Aug. 25	Ship		
		-0.1 fm	0800-0920
		0.0 fm	0920-1110
		-0.1 fm	1110-1250
		-0.2 fm	1250-1355
		-0.3 fm	1355-1520
		-0.4 fm	1520-1950

The reducers for Aug. 23 were obtained from the marigram until 1000. After that the curve from Cape Chunu was adjusted to the 1000 reading and slightly altered to be similar to the curves usually obtained at Barabara Island.

The curve for Aug. 25 was obtained by interpolating for highs and lows and adjusting and slightly altering the curve from the Chunu gage.

Aug. 26	Ship	Barabara Reducers	
		-0.2 fm	0800-0925
		-0.1 fm	0925-1150
		-0.2 fm	1150-1320
		-0.3 fm	1320-1440
		-0.4 fm	1440-1630
		-0.5 fm	1630-1800

Sept. 12	Ship		
		-0.4 fm	0800-2020

APPROVAL SHEET

HYDROGRAPHIC SURVEY No. H-8057

The smooth sheet, sounding volumes, fathograms and descriptive report for 1953 hydrography have been examined and are approved.

The portion of the survey completed in 1953 is complete and adequate and no additional field work within that area is recommended. The boat sheet will be retained aboard the EXPLORER for completion of the survey in 1954 in accordance with Supplemental Instructions for Project CS-218 dated 23 December 1953.

All hydrography was done by the USC&GSS EXPLORER and was under constant supervision of the Chief of Party.

S. B. Grenell
Commander, USC&GS
Comdg. Ship EXPLORER

STATISTICS

For Hydrographic Survey H-8057 (1953)
Field No. EX-6253
Ship EXPLORER
Project No. CS-218

Vol. No.	Day Ltr.	Date	No. H.L. or Wire Sndgs.	No. Pos.	Statute Miles of Sounding Lines
1	A	6/5/53	--	49	28.0
1	B	6/27/53	--	97	96.2
1 & 2	C	6/28/53	--	47	35.4
2	D	7/7/53	--	76	74.0
2 & 3	E	7/17/53	--	103	78.6
3	F	7/24/53	--	106	92.0
4	G	7/25/53	--	55	42.8
4	H	8/17/53	--	101	96.6
5	J	8/18/53	--	86	73.8
5	K	8/23/53	--	70	60.8
6	L	8/25/53	4	4	--
6	M	8/26/53	--	2	1.0
6	N	9/12/53	9	9	--
6	TOTALS		13	805	679.2

Area (1953 hydrography): 375 square statute miles.

Part II
Descriptive Report
to Accompany
Hydrographic Sheet H-8057
Field No. EX-6253
Tanaga and Kanaga Islands, Alaska
1954
Scale 1:60,000
USC&GSS EXPLORER S. B. Grenell, Comdg.

Surveyed by: The 1954 work was by S. B. Grenell, K. B. Jeffers and J. C. Tison, Jr.

A. Project

The survey was executed in accordance with instructions for Project CS-218 as listed in Part I hereof.

B. Survey Limits and Dates

That part of the survey executed in 1954 includes offshore hydrography in vicinity of Cape Sudak, Tanaga Island, in vicinity of Bobrof Island, a narrow strip along the north and west shores of Kanaga Island just outside the 1:20,000 scale launch surveys, and an area extending from Cape Sudak, Tanaga Island eastward to Cape Miga, Kanaga Island, and lying between work completed in 1953 and EPI controlled surveys of 1952.

Date of beginning survey - 14 May 1954
Date of ending survey - 26 June 1954

Junctions with prior surveys:
H-7997 (1952) - on southwest. ~ H-8053(1953) on east.
H-7978 (1952) - north limits of sheet from Cape Sudak to Cape Miga H-7023(1944) S. of Cape Sajaka Tanaga I.
H-8054 (1953) - Falls Point to Cape Sudak, Tanaga Island
H-8052 (1953) on north H-693(1943) north end of Kanaga Pass.
Junctions with contemporary surveys:

H-8141 (EX-2154) - Northwest Point, Kanaga Island to Ship Rock, vicinity Cape Sudak, Tanaga Island, and vicinity Bobrof Island.
H-8142 (EX-2254) - North and west shores Kanaga Island, Ship Rock to Cape Miga
H-8139 (EX-4154) - Adak Strait

New Surveys Not Yet Registered June 30 '55

See #4 of Review.

All inshore surveys in vicinity Cape Sudak, Tanaga Island, in vicinity Bobrof Island, and along the north and west shores of Kanaga Island were completed in 1954 (see Part I).

Special Report on Shoran corrections filed as Special Report

C. Vessel and Equipment

All hydrography on this sheet completed in 1954 was accomplished by the Ship EXPLORER.

EDO fathometer No. 4 was in operation for all hydrography. When the EDO did not function for short periods, NMC fathometer No. 54 was operated for deep soundings. 808 fathometer No. 113-S was used for shoaler soundings to limit of its range.

No wire soundings were obtained in 1954.

D. Tide and Current Stations

A portable automatic tide gage was maintained at Barabara Island, Tanaga Island while the 1954 hydrography was in progress. All tide reducers to 1954 soundings derive from the Barabara Island station, with no time or range corrections applied.

Current stations were occupied with the Roberts Radio Current Meter as follows:

Station # 28 - Lat. 51° - 43' - 03" N., Long. 177° - 47' - 40" W.
(Kanaga Pass)

Station # 29 - Lat. 51° - 44' - 28" N., Long. 177° - 45' - 08" W.
(Kanaga Pass)

Station # 4 - Lat. 51° - 51' - 30" N., Long. 177° - 33' - 18" W.
(East of Cape Sudak)

E. Smooth Sheet

Paragraph E., Part I applies with following additions:

Shoran arcs for stations BOBO and SHIP were drawn by hand by ship's officers.

Triangulation stations ROF, 1943; JUNE, 1943; BET, 1943 and MAD, 1943 were plotted by ship's officers.

Topographic stations MAT, FOX, AND, NEW and BOBO were plotted by ship's officers from geographic positions determined from fourth order theodolite observations.

Topographic stations FAG, ELK, AIR and SAX were plotted on the smooth sheet from positions scaled from 1:20,000 scale graphic control manuscripts.

No shoreline is shown on the smooth sheet for Bobrof and Kanaga Islands.
Shoreline inked by Washington Office.

F. Control Stations

Triangulation stations ROF, 1943; JUNE, 1943; BET, 1943 and MAD, 1943 were established by G. C. Mattison.

Geographic positions of topographic stations MAT, BOBO, FOX, AND and NEW were computed from fourth-order theodolite observations. See also topographic manuscripts T-9924, T-9932 and T-9933. Station NEW consists of a whitewash very near topographic station KING, but differing slightly as to location.

Topographic stations FAG, ELK, AIR and SAX are photo-hydro stations located by photogrammetric methods on Manuscript T-9924 from 1954 field inspection data.

The shoran antenna at triangulation station SHIP, 1943 is actually offset from the station mark 2.95 meters, a distance not plottable to the scale of this sheet. The shoran station SHIP and triangulation station SHIP, 1943 are therefore shown as the same point.

G. Shoreline and Topography

No shoreline or topography is shown on the smooth sheet for Bobrof or Kanaga Islands. See Part I, this report, reference shoreline penciled on smooth sheet. Shoreline inked by Washington Office.

H. Soundings

All soundings obtained in 1954 are from graphic records of echo sounding equipment listed in paragraph C hereof. "Special Report on Fathometer Corrections - Ship EXPLORER - 1954" is applicable. Rept in Library

I. Control of Hydrography

The 1954 hydrography was controlled by visual sextant fixes on shore stations except for the narrow strip off the north and west shores of Kanaga Island, which is controlled by shoran using stations BOBO and SHIP.

J. Adequacy of Survey

The hydrography completed in 1954 is considered complete and adequate for charting purposes and complies with Project Instructions and the Hydrographic Manual. The sheet as a whole is complete and no additional work is recommended.

Agreement between the 1953 hydrography and that completed in 1954 is excellent except as follows:

A 95-fathom sounding on position #35 - "P" day (1954) plots between two 92-fathom soundings from "J" day (1953), position #75 plus 4 and position #75 plus five. This discrepancy is in an area of irregular 92 fms. sdg plotted.

bottom and is probably due to a slight misplacement of one or the other sounding lines. The 1953 records were not available for investigation.

An 81.3 fathom sounding from "S" day (1954), position #1 plus 2 plots between a 63-fathom sounding and a 74-fathom sounding from "K" day (1953), position #64 plus 0 and position #64 plus 1. This discrepancy is in an area of very irregular bottom and may be due to a very slight displacement of soundings. The 1953 records were not available for investigation.

See note following paragraph.

The 44-fathom sounding just before position #64, "K" day (1953) appears too shoal and should be verified from the 1953 records. Its existence is not indicated by soundings obtained very close by.
Lat. 51°50.5, Long. 177°16.9'

44 fm. sdg O.K.

The junction between the 1954 work and adjoining survey H-7978 (1952) on the north indicates that the southernmost line of soundings from the EPI controlled 1952 work should be shifted in position about 0.2 mile to northwest. The next line of soundings to the north on survey H-7978, between meridians 177°-28' and 177°-34' appears to be about 0.2 mile too far north. If shifted as indicated, the two sounding lines on H-7978 would be in better agreement with each other and with the 1954 work on this sheet.

1952 sdg lines adjusted to agree with H-8057

(1953)

The junction with survey H-8054 (EX-2453) to northwest of Cape Sudak is satisfactory.

Junctions with surveys H-8141 (EX-2154), H-8142 (EX-2254) and H-8139 (EX-4154) will be discussed in descriptive reports for these surveys.

Not in Wash. office 1/6/55 1.142

There are no holidays.

K. Crosslines

There are no discrepancies at crossings other than the two discussed in paragraph "J." above.

See P2 Review

L. Comparison with Prior Surveys

The only prior survey within the area of survey H-8057 is reconnaissance survey H-6778 (1943). The common area was completely re-surveyed, and H-8057 supersedes H-6778 in all areas of coincidence. The 48-fathom sounding from H-6778, on the northeast side of Bobrof Island near Lat. 51°-56' and Long. 177°-24' is obviously out of position, as are other soundings on the same reconnaissance line.

See P5 of Review

M. Comparison with Chart

Soundings from survey H-8057 supersede all charted soundings within the survey's limits.

N. Dangers and Shoals

This is an offshore survey and no dangers were found.

See paragraph "J" above reference the 44-fathom sounding at Lat. 51°-50.5' and Long. 177°-17.0'.

O. Coast Pilot Information

See Coast Pilot Notes for 1954 field season, as previously submitted, for all Coast Pilot information in the area.

P. Aids to Navigation

No navigational aids, bridges, or overhead or submerged cables exist in the area.

Q. Landmarks for Charts

See inshore surveys H-8141 and H-8142 for landmarks in the area surveyed in 1954. (New surveys not yet registered 10-5-55)

R. Geographic Names

See "Special Report on Geographic Names - Tanaga and Kanaga Islands - USC&GSS EXPLORER - Season 1953" and "Special Report on Geographic Names - Bobrof, Kanaga and Adak Islands - USC&GSS EXPLORER - Season 1954".

See also surveys H-8141 and H-8142.

S. Tabulation of Applicable Data

Data forwarded with this report:

Smooth Sheet H-8057
Boat Sheet H-8057 (EX-6253)
3 sounding volumes, No. 6 thru No. 8.
1 envelope of fathograms (1954)
4 sheets Shoran Plotting Abstract
1 tracing of junction survey H-7978 (1952)

Data forwarded separately:

"Field Inspection Report - Map T-9924, Bobrof Island, Alaska - Ship EXPLORER - 1954". (Forwarded 14 August 1954)
"Field Inspection Report - Maps T-9925, T-9926, T-9932 thru T-9934, T-9940, T-9941, Kanaga Island, Alaska - Ship EXPLORER - 1954". (Forwarded 11 October 1954).

Tide Data for Barabara Island tide station (forwarded 15 Sept. 1954).
Special Report on Shoran - Ship EXPLORER - 1954 (to be forwarded).
Special Report on Fathometer Corrections - Ship EXPLORER - 1954 (to be forwarded)
Special Report on Geographic Names, Bobrof, Kanaga and Adak Islands - 1954 (forwarded 18 November 1954).
Coast Pilot Notes - Ship EXPLORER - 1954 (forwarded 20 Dec. 1954).
Season's Report - Ship EXPLORER - Project CS-218 - 1954 (forwarded 30 November 1954).
Data for Current Stations #28, #29 and #4 (forwarded 16 June 1954).

Additional Applicable Data:

Topo Manuscript T-9924 as compiled from 1954 field inspection data.

Respectfully submitted

James C. Tison, Jr.

James C. Tison, Jr.
Commander, USC&GS

STATISTICS

For Hydrographic Survey H-8057 (1954)
Field No. EX-6253
Ship EXPLORER
Project No. CS-218

Vol. No.	Day Ltr.	Date	No. HL or Wire Sdgs.	No. Pos.	Statute Miles of Sdg. Lines
6	P	5/14/54	- -	121	67.8
6	Q	5/15/54	- -	61	42.1
7	R	5/20/54	- -	18	12.1
7	S	5/21/54	- -	71	44.0
7	T	6/6/54	- -	117	72.6
8	T	6/6/54	- -	20	13.7
8	U	6/7/54	- -	77	64.8
8	V	6/26/54	- -	43	23.8
	TOTALS		0	528	340.9

Area (1954 Hydrography): 105 square statute miles

TIDAL NOTE
To Accompany
Hydrographic Sheet (Field No. EX-6253) Reg. H-8057

For tide reducers on this sheet tide gages were maintained at Tanaga Bay, Lat. 51-43.1, Long. 177-59.8, Gusty Bay, Lat. 51-52.45, Long. 177-54.43 and at Barabara Island, Lat. 51-48.55, Long. 177-44.52.

The MLLW reading on the Tanaga Bay staff was 6.3 ft., on the Gusty Bay staff was 4.8 ft., and on the Barabara Island staff was 2.0 ft.

No corrections were made for distance from the gage and the closest gage was always used.

Tidal Note

to accompany

Hydrographic Sheet H-8057 (Field No. EX-6253)

Tide reducers for all soundings obtained in 1954 derive from data for a tide station maintained at Barabara Island, Tanaga Island, in Lat. 51-48.55' and Long. 177-44.52'.

MLLW on the Barabara Island tide staff was 2.8 feet.

No corrections were made for distance of the hydrography from the gage.

Approval Sheet

Hydrographic Survey No. H-8057

(Work executed in 1954)

The smooth sheet, sounding volumes, fathograms and descriptive report for 1954 hydrography have been examined and are approved.

That portion of the survey executed in 1954 is complete and adequate and no additional field work is recommended.

All hydrography was accomplished by the Ship EXPLORER, under constant supervision of the Chief of Party.

S. B. Grenell
Captain, USC&GS
Chief of Party

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~ 4 June 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8057

Locality Tanaga and Kanaga Islands, Aleutian Islands

Chief of Party: S. B. Grenell in 1953
Plane of reference is mean lower low water, reading
4.8 ft. on tide staff at Gusty Bay, Tanaga Island
8.8 ft. below B. M. 1 (1953)

6.3 ft. on tide staff at Tanaga Bay, Tanaga Island
10.1 ft. below B. M. 1 (1944)

2.0 ft. on tide staff at Barabara Island
7.2 ft. below B. M. 1 (1953)

Height of mean high water above plane of reference is as follows:

Gusty Bay	=	3.3 feet
Tanaga Bay	=	4.0 feet
Barabara Island	=	3.1 feet

Condition of records satisfactory except as noted below:

E.C. McKay
Tides Branch

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877933

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coast and Geodetic Survey~~ 23 February 1955

Division of Charts: R. H. Carstens

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 8057 Ad. Wk.

Locality Aleutian Islands, Alaska

Chief of Party: S. B. Grenell in 1953-54
Plane of reference is mean lower low water, reading
2.0 ft. on tide staff ~~at~~ (1953) at Barabara Island
2.9 ft. ~~below~~ on tide staff (1954) at Barabara Island
7.2 ft. below B. M. 1 (1953)

Height of mean high water above plane of reference is 3.2 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877033

GEOGRAPHIC NAMES

Survey No. H-8057

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		}	for title.							1
Aleutian Islands		}								2
Bering Sea									BGN	3
Bobrof Island									"	4
Kanaga Sound										5
Kanaga Island									B.G.N.	6
Kanaga Pass										7
Cape Sudak										8
Tanaga Island									B.G.N.	9
										10
										11
										12
				Names approved 5-25-54. L. Heck.						13
										14
Tide stations:										15
Tanaga Bay									BGN	16
Gusty Bay										17
Barabara Island										18
Cape Sajaka										19
Cape Miga										20
Ship Rock				approved 10-12-56 L.H.						21
										22
(Page 5 of 1953 D.R.) Tangent Point										23
Falls Point										24
Ribbon Falls										25
Kanaga Sound										26
Northwest Point										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..H-8057.

Records accompanying survey:

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

bomb vols. .....; graphic recorder rolls 1 Env.;

special reports, etc. 1 Smooth Sheet; 1 Descriptive Report; 1 Cahier-Shoran Abs plus additional 1954 work which is: 4 sheets of Shoran Plotting Abstracts, 1 env. of Fathograms, 1 Smooth Sheet, 1 Tracing of H-7978,

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

Number of positions on sheet		1,333
Number of positions checked		27
Number of positions revised		3
Number of soundings revised (refers to depth only)		17
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		1
Topographic details	Time	16 Hrs.
Junctions	Time	22 Hrs.
Verification of soundings from graphic record	Time	9 Hrs.

Verification by Stephen Rose Total time 256 Hrs. Date 9-28-55

Reviewed by Lee Jeskund Time 54 Date 10-19-55

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8057 FIELD NO. EX-6253

Alaska, Aleutian Islands, Andreanof Islands, North of Tanaga and Kanaga Islands

Project No. CS-218

Surveyed - June, 1953 - June, 1954 Scale 1:60,000

Soundings:

Edo. Fathometer
NMC Fathometer
808 Fathometer

Control:

Visual fixes on shore signals
Shoran

Chief of Party - S. B. Grenell
Surveyed by - S. B. Grenell, F. G. Johnson, J. C. Tison, Jr., H. G. Conerly, and K. B. Jeffers
Protracted by - E. R. Stone and J. C. Tison, Jr.
Soundings plotted by - E. R. Stone and J. C. Tison, Jr.
Verified and inked by - S. Rose
Reviewed by - I. M. Zeskind 10-12-55
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-9921 through T-9924, T-9927, T-9929 and T-9931 through T-9933 of 1953.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

This is an offshore survey of portions of the insular slope and shelf between depths of 40-1200 fms., in the area which lies north of Kanaga and Tanaga Islands. The bottom is fairly irregular in depths less than 500 fms. and fairly smooth in greater depths. The indentations in the insular shelf contribute greatly to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with the following surveys:

Inshore	Location
H-8052 (1952)	on the northwest side of Tanaga Island
H-8054 (1952)	on the northeast side of Tanaga Island
H-8053 (1952)	in Kanaga Pass
H-6931 (1943)	in Kanaga Pass

Offshore	Location
H-7978 (1952)	on the north

The junction with H-7977 (1952), offshore on the west will be considered in the review of that survey.

The following project surveys have not as yet been received in the Washington Office:

Inshore

In the vicinity of Cape Sudak, Tanaga Island
On the north side of Kanaga Island
In the vicinity of Cape Miga, Kanaga Island

5. Comparison with Prior Surveys

A. H-6778 (1943), 1:120,000

This survey falls within that portion of the present survey which lies east of Kanaga Pass.

A comparison between the prior and present survey reveals only minor discrepancies in depths considering the steep gradients and the irregularity of the bottom. In several areas discrepancies of as much as 28 fms. are found, however, as for example in lat. 51°58.7', long. 177°26.8', where a prior depth of 521 fms. falls in present depths of 549 fms. These latter discrepancies are attributed to weak control on the prior survey.

The present survey is adequate to supersede the prior survey within the common area.

B. H-6908 (1933), 1:40,000
H-6909 (1933), 1:40,000

These U. S. Navy reconnaissance surveys fall within the area of the present survey which lies east of long. 177°40'. A comparison between the prior and present surveys reveals a considerable number of discrepancies in depths. These discrepancies are attributed to poor horizontal control

as evidenced by the disagreement noted in the position of the shoreline and in distances from one island to another on the prior and present surveys, and to the improper spacing of soundings on the prior surveys. It is evident that a shift in position of the prior sounding lines would eliminate many of these discrepancies.

The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Charts

A. Hydrography

Chart 8863 (latest print date 1-14-52)

The charted hydrography originates principally with miscellaneous surveys accomplished from 1943 to 1945 by this Bureau (Bps. 37702, 37486 and 40307 and Chart Letter 734, 1945) and with prior survey H-6778 (1943). Discrepancies between the charted and present depths of as much as 349 fms. are noted, as for example, in lat. 51°56.0', long. 177°24.0', where a charted depth of 49 fms falls in present depths of 387-398 fms. These differences in depths are attributed to dead reckoning control and the improper spacing of lines on the prior surveys.

The present survey is adequate to supersede the charted information within the common area.

Chart 9193 (latest print date 7-5-45)

The charted hydrography originates principally with prior survey H-6778 (1943) previously discussed, which needs no further consideration, supplemented by several soundings from a trackline survey (Chart Letter 179, 1946) accomplished by this Bureau in 1945. The charted trackline soundings differ with present depths by as much as 228 fms. These differences are attributed to errors in the positions of the trackline.

The present survey is adequate to supersede the charted information within the common area.

Chart Drawing 9145, dated 10-17-55

The charted hydrography originates with the boat sheet of the present survey. Smooth sheet soundings differ with the boat sheet soundings by as much as 1-6 fms in depths ranging from 30-1000 fms, except as follows:

Charted depth-fms.	Location Latitude	Longitude	H-8057 Revised depths, fms.
516	51°55.6'	177°52.7'	530
885	51°56.8'	177°34.1'	797

The revisions to the charted hydrography are indicated on an overlay of the Chart drawing for correction by the compiler.

Chart Drawing 9146 (drawing No. 7)

The charted hydrography originates with the boat sheet of the present survey. Smooth sheet soundings differ with the boat sheet soundings by as much as 1-2 fms., except as follows:

Charted Depths-fms	Location Latitude	Longitude	H-8057 Revised depths, fms.
306	51°53.8'	178°14.6'	406
289	51°53.3'	178°14.2'	259

The revisions to the charted hydrography are indicated on an overlay of the Chart drawing for correction by the compiler.

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.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This survey is considered basic and no additional field work is recommended. As a matter of record, attention is directed to the scarcity of bottom characteristics in much of the area. Split lines would have been desirable in the vicinity of lat. 51°56', long. 178°00', and lat. 51°56.6', long. 178°00' to more adequately reveal the bottom configuration in those areas.

H-8057 (1953-54)-5

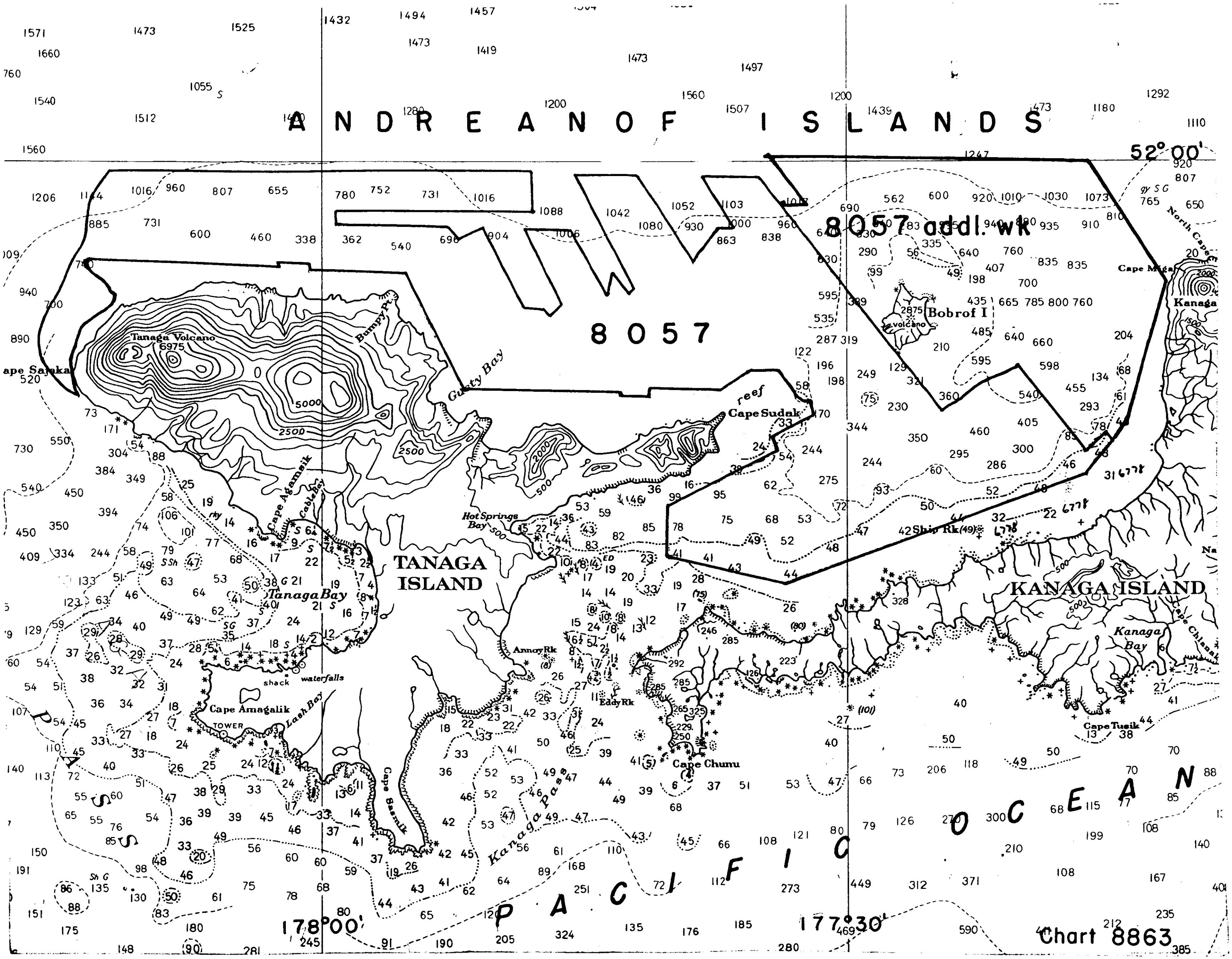
Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Chief, Chart Division

J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys



ANDREANOF ISLANDS
8057
8057 addl. wk
TANAGA ISLAND
KANAGA ISLAND
Tanaga Volcano
Bobrof I
Cape Sudak
Gunny Bay
Hot Springs Bay
Tanaga Bay
Cape Amagalik
Cape Chunu
Cape Tusik
Kanaga Bay
Kanaga Pass
Ship Rk
Annoy Rk
Eddy Rk
PACIFIC OCEAN
52°00'
178°00'
177°30'
Chart 8863

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8057

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/8/54	9145	L.G. McGann	Before ~~After~~ Verification and Review Fully applied
9 Feb'55	9146	K. MacEwen	Before [redacted] Verification and Review
11/2/55	9145	H.F. Stegman	~~Before~~ After Verification and Review Corrections noted in review.
11/26/56	9193	E.S. Allard	~~Before~~ After Verification and Review 3NM
10-22-58	9145	R.N. DeLander	~~Before~~ After Verification and Review
12/17/58	8863 Records	J.F. Walley	~~Before~~ After Verification and Review
12/30/92	16467	Joseph Reburn	~~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.