

8051

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-2153 Office No. H-8051

LOCALITY

State Alaska

General locality Aleutian Islands

Locality South Side of Tanaga Island

19 53

CHIEF OF PARTY

S. B. Grenell

LIBRARY & ARCHIVES

DATE July 2, 1954

B-1870-1 (1)

8051

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-8051

Field No. HL-2153

State Alaska

General locality Alutian Islands

Locality South side of Tenuge Island

Scale 1:10,000, 1:20,000 Date of survey 9 June to 3 September 1953

Instructions dated 19 March 1952, 20 February 1953, 6 April 1953

Vessel USCGC EXPLORER

Chief of party S. B. Grenell

Surveyed by H. G. Conerly, E. M. Whipp, E. F. Lanier, J. J. Dermody

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

Fathograms scaled by fathometer readers

Fathograms checked by D. M. Whipp, J. H. Chapp, Y. Bagastian, E. A. Garcia,
J. J. Dermody, F. J. Tucker, E. E. Stone

Protracted by J. J. Dermody

Soundings penciled by G. E. Schevon, A. C. Haglund, V. F. Glover

Soundings in fathoms ~~MSL~~ W.M. Martin at ~~MSL~~ MLLW *and are based on a velocity of sound of 800 fms./sec.*

REMARKS:

DESCRIPTIVE REPORT

to accompany

Hydrographic Sheet H-8051

Field Number EX-2153

Tanaga Island, Alaska

1953

Scale 1:10,000 and 1:20,000

USC&GSS EXPLORER S. B. Grenell, Commanding

Surveyed by: H. G. Conerly, D. M. Whipp, R. F. Lanier, J. J. Dermody

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

Letter No. 22/MEK, S-1-EX, dated 6 April 1953, subject,
Clarification of Instructions

B. SURVEY LIMITS AND DATES

This survey covers the inshore hydrography on the west, south and east sides of Tanaga Island from Kuluk Point to Twin Bays.

Date of beginning survey - 9 June 1953

Date of ending survey - 3 September 1953

Junctions with prior surveys:

H-6914(1944) - Scale 1:720, Lash Bay

H-7006(1944) - Scale 1:10,000, North of Kuluk Point

H-7023(1944) - Scale 1:40,000, West and South limits of sheet

H-7026(1944) - Scale 1:20,000, Northwest of Kuluk Point

H-7081(1945) - Scale 1:20,000, East limits of sheet

Review
TP4

Junctions with contemporary surveys:

EX-2353(H-8053) - In Kanaga Pass North of H-7081

EX-6153(H-8056) - Southeast of Cape Sasmik

C. VESSEL AND EQUIPMENT

All hydrography was done by launches operating from the EXPLORER.

Some bottom samples were obtained from the ship and soundings were obtained at detached positions.

All hydrography was done with 808 fathometers or hand lead on shoals and at detached positions.

Fathometers used:

Launch No. 1 - 808 No. 49
Launch No. 2 - 808 No. 50
Launch No. 3 - 808 No. 60
Ship EXPLORER - 808 No. 113S

Sounding machine No. H-117 was used by ship for wire soundings. ✓

D. TIDE AND CURRENT STATIONS

Portable tide gages were maintained at Tanaga Bay (same location as 1944 tide station) and at Cape Chunu.

Tide reducers were determined from data at Tanaga Bay tide station for area from Cape Sasmik west and from data at Cape Chunu tide station from Cape Sasmik east.

No time or range corrections were applied for either tide station. ✓

See tide note and list of reducers attached to this report. ✓

There are no current stations within the area of this survey. ✓

E. SMOOTH SHEET

The smooth sheet projection, the 1:10,000 scale sub-plan of Lash Bay and the 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. Other topographic stations were transferred direct to the smooth sheet by pricking thru graphic control manuscripts T-9935, T-9936 and T-9942 (1953). ✓

Positions of topographic ^{signals} positions on the 1:10,000 scale sub-plan were scaled from manuscript T-9935 and plotted on the sub-plan from the scaled positions. ✓

Hydrographic stations were plotted by conventional methods. ✓

Shoreline and topographic details were transferred direct to the smooth sheet from bromoil prints of topographic manuscripts T-9935, T-9936 and T-9942 (1953). Shoreline and topographic details on the 1:10,000 scale sub-plan of Lash Bay were enlarged by projector from a 1:20,000 scale print of topographic manuscript T-9935. ✓

Hydrography in Lash Bay and southward to a junction with H-7023 (1944) was plotted on the 1:10,000 scale sub-plan. ✓

F. CONTROL STATIONS

Triangulation stations were established by Charles Pierce in 1944, by C. D. Meaney in 1945 and by this party in 1953.

Geographic positions of topographic stations BLOB, DEN and MOP were computed from fourth-order theodolite observations. Other topographic stations are photo-hydro stations located by photogrammetric methods on manuscripts T-9935, T-9936 and T-9942 from 1953 field inspection data.

Hydrographic stations were located by conventional methods.

Theodolite directions were observed on some stations and are listed on lists of fourth-order directions furnished with photogrammetric data for Tanaga Island.

Marked topographic stations established are BLOB, 1944 and CAT, 1944.

All offshore stations are on rocks.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic details are from photogrammetric compilation of manuscripts T-9935, T-9936 and T-9942 from 1953 field inspection data.

Some references to rocks and other topographic features in sounding records apparently refer to rocks on topographic manuscripts, although they place the feature in a slightly different position. Rocks, etc., were not plotted from sounding records if they plotted near to a rock on the manuscripts. See also Par. J., Adequacy of Survey.

All important offshore topographic features were verified by hydrography.

The low-water line was not defined by soundings. A fringe of kelp along rocky shoreline, breakers on beaches and steep foreshore of ledges prevented sounding into the low-water line. On ledges the low-water line is usually at the outer edge of the ledge and was defined on photographs.

Shoreline on the boat sheets was transferred from bromoil prints of preliminary manuscripts RS-426.

H. SOUNDINGS

All soundings on sounding lines were measured with echo sounding equipment listed in Par. C. Hand lead or wire soundings were obtained as bottom samples were obtained. See "Special Report on Fathometer Corrections - Ship EXPLORER - 1953". *In Library*

I. CONTROL OF HYDROGRAPHY

Hydrography was controlled by visual sextant fixes on shore signals and by shoran.

Shoran control using stations DEN and SIX was used in the area east of Cape Sasmik and north of latitude 51-39.5, except in Twin Bay. Visual control was used in Twin Bay and in all other areas not included in the above limits.

J. ADEQUACY OF SURVEY

The survey is considered complete and adequate for charting and complies with the Project Instructions and the Hydrographic Manual.

Junctions with H-7081(1945) and H-8053(1953) are satisfactory and depth curves can be adequately drawn except in vicinity of Pos. 64-65g. *Launch #2. Junctions with other adjoining surveys were not made on the smooth sheet but appear satisfactory on the boat sheet. ** Discrepancy resolved by shoran correction.*

There are no holidays.

There is some evidence that corrections to shoran distances from DEN are excessive and that distances from DEN are too long. There isn't enough evidence available to evaluate this error, if any, or to indicate that it is consistent. Hydrography close inshore controlled by DEN does not plot correctly relative to topographic features. Soundings that plotted on or very close to topographic features were omitted. See H-8053 (1953). *Shoran Correction: 06 applied to distances from Den. This correction also applied on H-8053*

K. CROSSLINES

Crosslines were run to the extent of about 7% of the regular system of sounding lines.

There are no large differences in depths that will displace depth curves appreciably.

L. COMPARISON WITH PRIOR SURVEYS

This is a new survey and no prior surveys exist except at junctions. ** H-6908 (USN) covers the eastern portion of present survey* *TP 5 Review*

This survey was extended into junction surveys to investigate soundings listed on Preliminary Review of Chart 8863 with the following results:

Item 6 - 29 fm. sounding on H-7023(1944) at 51-37.97, 178-03.55 was developed and the 29 fm. sounding was verified. *about 80m. northward on present survey.*

16-fm. sounding on H-7023(1944) at 51-37.50⁴, 178-01.80. Two lines were run across this area with a least depth of 18 fms. *02.02*

18-fm. sounding on H-7023(1944) at 51-37.00, 177-58.55 was developed - least depth 16 fms., Pos. 181-182d day, Launch #1.

19-fm. sounding on H-7023(1944) at 51-35.21, 177-55.75 was developed - least depth 17 fms., Pos. 219-220 c day, Launch #1.

Item 7:

15 fm. sounding on H-7023(1944) at 51-38.9, 178-03.35 - area sounded on 1:10,000 scale sub-plan; least depth 24 fms.

sndg deleted from prior survey, probably misread visual fathometer (pg 9 D.R. H-7023.)

Item 8:

Lash Bay and approaches was completely resurveyed on 1:10,000 scale sub-plan.

Additional development of shoal soundings on H-7023(1944).

51-40.3, 178-09.37- 15 fm. sounding on H-7023; least depth on this survey, 13 fms., Pos. 14-15 e day, Launch No. 2.

51-38.9, 178-02.8 - 3 fm. on H-7023; least depth on this survey, 2.7 fms. *H.L. sdg. accepted*

51-38.8, 178-02.4 - 7.8 fm. on H-7023; least depth on this survey, 9.2 fms.

51-38.9, 178-03.35 - 15.5 fm. on H-7023; least depth on this survey, 24 fms.

M. COMPARISON WITH CHART

H-8051 was applied to reconstructed chart # 9146, 2nd edition, 1956. (See PG Review)

Comparison was made with Chart 9146, print date 8/27/51.

The only charted soundings not on junction survey are in Lash Bay, Twin Bays and along the east edge of this survey.

In Twin Bays and approaches, soundings on this survey are generally shoaler than charted soundings. It is recommended that this survey supersede all charted soundings in Twin Bays and approaches.

In Lash Bay the charted sunken rock at 51-39.95, 178-02.67 was verified with a hand lead sounding of 1.2 fms.

The charted 3-fm. sounding at 51-40.0, 178-02.63 was verified.

Rocks awash at 51-39.4, 178-02.6 (TINY, 1944) and 51-39.6, 178-02.5 (TIM, 1944) were verified.

Charted wreck at 51-40.1, 178-02.8 is barely visible and is no longer recognizable. It is recommended that it be deleted from the chart. *Retain - WK. See TP6*
 (WK charted from USC&GS Field Survey 1944 - Sp 38933)

The pier at the head of Lash Bay has been partially destroyed. The existing outer end was located by sextant fix and cuts. See T-9935 (1953).

Charted shoreline and topographic details are generally correct as charted but are entirely superseded by more detailed photogrammetric compilation from 1953 field inspection data. All critical charted features were verified except: *TP1 Review*

The island at 51-37.9, 177-54.3 is a small group of rocks awash with one small, low bare rock. *⊗ Lob*

Sextant fixes were obtained at three rocks awash west of HEM. The same fixes were furnished with photogrammetric data for plotting on manuscript T-9935. The limiting charted rocks were verified but shifted slightly in position.

A sextant fix was obtained on a rock awash at 51-36.6, 177-57.2. This rock is considered the same as a charted sunken rock at a slightly different position.

The charted mooring buoy in Lash Bay is no longer in existence.

N. DANGERS AND SHOALS

The entire shoreline is generally rocky and foul except in Lash Bay and Twin Bays. Limiting dangers covered by this survey are listed below:

No.	Latitude	Longitude	Depth, Fms.	Pos. No.	Launch No.
1	51-40.4	178-08.0	1.4 1.7	72-73c	2 (2.8 fm Lat 51°40.35', Long. 178°07.9')
	at west extremity of extensive shoal area - (Inferno Reef)				
2	51-39.7	178-07.5	breaker	96d	2
3	51-40.06	178-07.723	sunken rock	78-79d	2
	at south edge of extensive foul area				
4	51-39.4	178-05.9	bare rock	Station NUB, 1944	
5	51-39.4	178-04.95	2.6	17-18d	2
6	51-39.458	178-04.215	2.2 4.0	184-185b	2
7	51-39.3	178-03.3	2.3	136-137c	3
8	51-40.1	178-02.85	rock awash	T-9935	
9	51-39.95	178-02.65	1.1	142b	3
10	51-39.4	178-02.6	rock awash	Station TINY, 1944	
11	51-39.8	178-02.5	rock awash	Station TIM, 1944	
12	51-38.95	178-02.8	2.7	157a	1
13	51-38.67	178-01.7	2.55	141-142d	3
14	51-38.0	178-01.4	rocks awash	T-9935	
15	51-37.8	178-01.5	Scarab Rock		

No.	Latitude	Longitude	Depth Fms.	Pos. No.	Launch No.
16	51-37.65	178-01.4	1.1	2b	1
17	51-38.1	177-58.5	5.7 7.7	70-71g	2
18	51-36.6	177-57.2	Rock awash	T-9942	
19	51-35.75	177-54.8	1.9	108-109c	1 * deleted - kelp reading
20	51-36.3	177-53.4	Bare rock	T-9942 (GUM)	no clear
21	51-37.9	177-53.9	1.7 3.2	204-205e H-54	
22	51-37.85	177-54.3	Bare rocks	T-9936	changed on SS.
23	51-39.7	177-54.8	Rock awash	T-9936	
24	51-40.4	177-53.8	Rock awash	T-9936	
25	51-41.0	177-53.65	Rocks awash	T-9936	

Other offshore areas of shoaling are:

No.	Latitude	Longitude	Depth Fms.	Pos. No.	Launch No.
1	51-40.3	178-09.437	13	14-15e	2
2	51-40.4	178-08.5	5.87	21-22c	2
3	51-39.5	178-06.3	4.3 7.8	24-25d	2
4	51-38.202	178-03.655	29	15-16b	1
5	51-38.8	178-02.45	9.4 14	38-39b	1 (kelp) least depth 76 fms H-7023
6	51-38.8	178-02.3	7.0 9.2	47-48b	1
7	51-37.5	178-02.0	18	99d	3 (least depth 16 fms H-7023)
8	51-37.0	177-58.5	16	181-182d	3
9	51-36.547	177-56.635	2.5 4	69-70h 87-88h	2
10	51-35.25	177-55.8	17	219-220c	1
11	51-39.952	177-53.871	9.9	57-58f	1

0. COAST PILOT INFORMATION

See "Coast Pilot Notes - U. S. Coast Pilot - Alaska Part II - Yakutat Bay to Arctic Ocean - Ship EXPLORER - 1953."

The ship anchored several times off Twin Bays with Christmas Tree Rock (Signal LIT) bearing 310 degrees, distant 0.6 mile; in 16 fathoms, with flat sand bottom and sheltered from west and north, and in South Bay with west gable of cabin (Station HUT, 1944) bearing 007 degrees and the south tangent of Tidgituk Island bearing 257 degrees, in 12 fathoms, with flat sand bottom, and sheltered from northwest thru north to southeast.

A good small craft anchorage in westerly or northerly weather is in the north west area of Twin Bays.

During the survey, launches also anchored in Lash Bay and in the coves at

51-39.4 - 177-01.5
51-39.1 - 177-01.1

The latter is a well protected anchorage for small boats.

P. AIDS TO NAVIGATION

No maintained aids to navigation exist within the area of this survey.

Lash Bay Range Front and Rear Daybeacon structures are still in existence. Those objects were located by triangulation in 1944 (FRONT RANGE LASH, 1944 - REAR RANGE LASH, 1944).

Charted buoys at 51-39.95, 178-02.7 and 51-39.2, 178-02.8 are no longer in existence.

There are no bridges, overhead or submerged cables or ferry routes within the area of this survey.

Q. LANDMARKS FOR CHARTS

Landmarks for charts were reported on Form 567.

New landmarks recommended for charting are:

Cabin in South Bay (Hut, 1944) ✓
Christmas Tree Rock (⊙ LIT) ✓
Cabin in Twin Bays (⊙ GID) ✓

Charted landmarks recommended for continuation are:

Control Tower near Lash Bay ✓
Shack (N. Gab.) 51-42.1, 178-02.1
Two charted waterfalls northeast of above shack } *beyond survey limits*
Tower (Radar Tower, 1945) ✓

Charted landmarks recommended for deletion:

Whitewash on rock - Kulak Point ✓
Building near Lash Bay ✓

R. GEOGRAPHIC NAMES

See "Special Report on Geographic Names - Tanaga and Kanaga Islands - USC&GSS EXPLORER - Season 1953". *on file in 854 L.H.E.C.*

Z. TABULATION OF APPLICABLE DATA

Forwarded with this report:

Smooth sheet H-8051 ✓
3 boat sheets EX-2153, EX-2153a, EX-2153b ✓
12 Sounding Volumes
Fathograms

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, including data listed therein, forwarded to Washington office 25 September 1953.

2. Triangulation data - 1953 Season - forwarded to Washington office 7 December 1953.

3. Tide data forwarded to Washington office 14 September 1953.

4. Special Report on Shoran - Ship EXPLORER - 1953 forwarded to Wash-^{Library}ington office 25 March 1954. ^{Spec. Rept #158}

5. Special Report on Fathometer Corrections - Ship EXPLORER - 1953, ^{Library}forwarded to Washington office 25 March 1954. ^{Spec. Rept 159}

6. Special Report on Geographic Names - Tanaga and Kanaga Islands - 1953, forwarded to Washington office 30 November 1953.

7. 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.

8. Geographic position of DEN forwarded to Washington office with H-8056 (1953).

Additional applicable data:

Topographic manuscripts T-9935, T-9936 and T-9942 compiled from 1953 field inspection data.

Respectfully submitted

Charles W. Clark

Charles W. Clark
Commander, USC&GS

STATISTICS
FOR HYDROGRAPHIC SURVEY H-8051 (1953)
USC&GSS EXPLORER
Project CS-218

<u>Vol. No.</u>	<u>Day Letter</u>	<u>Launch No.</u>	<u>Date</u>	<u>No. H.L. or Wire Soundings</u>	<u>No. Pos.</u>	<u>Stat. Miles Sounding Lines</u>
1	a	1 - skiff	7/2/53	4	5	--
1	d	1	8/30/53	<i>substant</i>	137	28.4
1	A	Ship	8/31/53	15	15	--
1 & 9	e	1	9/2/53 ✓	-	175	37.0
2	a	2	6/9/53	-	41	7.4
2	b	2	6/14/53	-	188	34.2
2 & 4	c	2	7/2/53	-	212	46.9
3	a	3	6/9/53	-	28	6.1
3	a	1	6/14/53	10	157	15.1
3 & 5	b	3	7/2/53	3	315	40.2
4	d	2	7/9/53	-	132	26.6
4	e	2	7/10/53	-	87	12.0
5	c	3	7/9/53	-	180	18.7
5	a	3 - skiff	7/12/53	1	1	--
6	f	2	7/11/53	-	130	27.1
6	g	2	7/12/53	6	130	24.5
6 & 10	h	2	7/30/53	4	153	30.4
7	d	3	7/10/53	-	192	25.0
7 & 8	b	1	7/11/53	4	192	28.3
8 & 9	c	1	7/12/53	-	228	43.5
9 & 12	f	1	9/3/53 -	4	81	17.4
10	j	2	9/3/53 -	-	45	9.0
11	e	3	7/30/53	5	220	36.8
11	f	3	8/14/53	1	4	--
11	g	3	9/3/53 ✓	1	76	20.7
<hr/>						
12	Totals:			58	3124	535.3

Area: 39 square statute miles

TIDAL NOTE

HYDROGRAPHIC SHEET FIELD No. EX 2153

Reg. No. H 8051

For tide reducers, gages were maintained at Tanaga Bay, Lat. $51^{\circ} 43.1'$, Long. $177^{\circ} 59.8'$, and Cape Chunu, Lat. $51^{\circ} 39.9'$, Long. $177^{\circ} 38.1'$.

Beyond limits of survey

Since the gages were not operating simultaneously and there would be a negligible difference in reducers if a time and distance correction were used for heights, reducers were taken from Tanaga Bay for hydrography west of Cape Sasmik and from Cape Chunu for hydrography east of Cape Sasmik.

The staff reading of MLLW on the Tanaga Bay gage was 6.3; on the Cape Chunu gage it was 1.7.

TIDE REDUCERS for SHEET EX 2153

Reg. No. H 8051

<u>Date</u>	<u>Day Letter and Vessel</u>	<u>Gage Used</u>	<u>Reducer, fms</u>	<u>From</u>	<u>To</u>
June 9	"a" Launch #2	Tanaga Bay	+ 0.1	0800	1025
	"a" " #3		0.0	1025	1300
June 14	"b" " #2	Tanaga Bay	0.1	0900	1000
			0.0	1000	1100
			+ 0.1	1100	1400
			0.0	1400	1500
			0.1	1500	1550
			0.2	1550	1630
			0.3	1630	1715
			0.4	1715	1800
			0.5	1800	1846
			0.6	1846	2300
July 2	"c" " #2	Tanaga Bay	0.4	0500	0935
	"b" " #3		0.3	0935	1050
			0.2	1050	1150
			0.1	1150	1550
			0.2	1550	1645
			0.3	1645	1728
			0.4	1728	1813
July 9	"d" " #2		+ 0.2	0720	1110
	"c" " #3		+ 0.1	1110	1200
			0.0	1200	1250
			0.1	1250	1335
			0.2	1335	1418
			0.3	1418	1510
			0.4	1510	1610
	0.5	1610	1900		
July 10	"e" " #2	Tanaga Bay	+ 0.1	0720	0815
	"d" " #3		+ 0.2	0815	1148
			+ 0.1	1148	1240
			0.0	1240	1323
			0.1	1323	1405
			0.2	1405	1450
			0.3	1450	1540
			0.4	1540	1640
			0.5	1640	1900
	0.6		1900	2300	
July 11	"f" " #2	Tanaga Bay	0.0	0726	0813
	"b" " #1		+ 0.1	0813	0910
			+ 0.2	0910	1220
			+ 0.1	1220	1325
			+ 0.0	1325	1415

July 11 (cont.)	"b"	Launch #1	Tanaga Bay	0.1	1415	1505
	"f"	" #2		0.2	1505	1545
				0.3	1545	1640
				0.4	1640	1740
				0.5	1740	2300
July 12	"a"	Skiff	Tanaga Bay	0.1	1725	0810
	"g"	Launch #2		0.0	0810	0910
	"c"	" #1		+ 0.1	0910	1325
				0.0	1325	1425
				0.1	1425	1515
				0.2	1515	1600
				0.3	1600	1645
				0.4	1645	1740
				0.5	1740	1930
				0.6	1930	2300
July 30	"h"	" #2	Cape Chunu	0.3	0720	0830
	"e"	" #3		0.2	0830	1230
				0.3	1230	1330
				0.4	1330	1420
				0.5	1420	1509
				0.6	1509	1615
				0.7	1615	1933
				0.6	1933	2047
Aug. 30	"d"	" #1	Cape Chunu	0.5	0800	1330
				0.6	1330	1520
				0.7	1520	2005
Aug. 31	"A"	Ship	Cape Chunu	0.5	0830	1300
				0.6	1300	1550
				0.7	1550	2020
Sept. 2	"e"	Launch #1	Cape Chunu	0.2	0750	0840
	"j"	" #2		0.3	0840	0930
				0.4	0930	1030
				0.5	1030	1400
				0.6	1400	1900
Sept. 3	"f"	" #1	Cape Chunu	0.1	0800	0845
	"g"	" #3		0.2	0845	0935
				0.3	0935	1025
				0.4	1025	1130
				0.5	1130	1830

GEOGRAPHIC NAMESCharted Names

CAPE AMAGALIK
 CAPE SASMIK
 KULAK POINT
 LASH BAY
 PACIFIC OCEAN
 SOUTH BAY
 TANAGA BAY
 TANAGA ISLAND
 ✓ TANAGA PASS
 TIDGITUK ISLAND
 TWIN BAYS

New names recommended in Special Report on Geographic Names -
 Tanaga and Kanaga Islands - USC&GSS EXPLORER - Season 1953.

CHRISTMAS TREE POINT
 HAREM ROCK
 HERD ROCK
 INFERNO REEF
 SCARAB ROCK
 WASH REEF
 WHIP ISLET

APPROVAL SHEET

HYDROGRAPHIC SURVEY NO. H-8051

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

Hydrography was done by launches operating from the ship and boat sheets were examined almost daily by the Chief of Party.

No additional field work is recommended.



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

H-8051
Ex-2153

South side of Tanaga Island

Seattle Processing Office
Notes

The following work on this sheet was done in the Seattle Processing Office

Soundings in Lash Bay.

Soundings and positions pos. 3 to 23b launch 1 vic. $\phi 51^{\circ} 38'$ $\lambda 178^{\circ} 03'$.

Depth curves.

Notes on kelp, rocks and etc. from sounding records.

Least depth notes.

Bottom characteristic notes.

Geographic names.

Heights of rocks from topo sheets.

Ink signal names, border of sub-plan, landmarks and degrees and minutes.

Correct shoreline between $\lambda 178^{\circ} 03'$ - $178^{\circ} 04'$ vic. signals Kelp & Max.

Comparison with adjoining surveys.


Reference is made to paragraph "J" of this report relative to the shoran differences. The shift in the positions appears to be different between the two launches that worked in the area. Launch No. 1 positions appear to be displaced in a westerly direction. Pos. 122e at $\phi 51^{\circ} 39.65$ $\lambda 177^{\circ} 54.85$, on which a sounding of 11 fathoms is recorded plots on a photo located reef. Positions 129 thru 134e at $\phi 51^{\circ} 40.0$ $\lambda 177^{\circ} 55.2$ appear too close inshore. Other line in the area also appear to be out of position. Launch No. 2 position 1j thru 45j appear to be displaced in a northerly direction the north end of the lines appear to be too close inshore. The shoran arcs have been checked and the trouble does not appear to be there. The shoreline is felt to be good since the visual controlled lines appear to check it fairly well.

Discrepancies resolved by correction to shoran distances.

A number of positions were changed by the field party in the upper part of Lash Bay, also on "d" launch 3 between signals TINY and POT. Some erasures were made and the paper appears rough, may not take ink.

The rocks on which triangulation stations TINY, 1944 and TIM, 1944 are located are shown on the photo compilation as bare rocks but are shown on H-7023 as rocks awash also called awash in this report. See paragraph "M".

rocks awash
(3)


Glenn W. Moore
Commander USC&GS.

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

α	2	to 3							
$2^d L$		δ							
α	2	to 1							
$\Delta \alpha$			180	00	00.0				
α'	1	to 2							

FIRST ANGLE OF TRIANGLE

ϕ	51	40	40.6972	DEN		λ	177	38	29.150
$\Delta \phi$			40.513			$\Delta \lambda$	+	12	30.756
ϕ'		39	59.1841			λ'	177	50	59.906

s	4.160	8930	Values in seconds		$\frac{1}{2}(\phi + \phi')$				
$\text{Cos } \alpha$	8.440	2960	+ 1829.1 ^{mch} (25.2)		Logarithms				Values in seconds
B	8.509	9566	1st term + 40.846		s	4.160	8930		
h	6.611	1456	"		$\text{Sin } \alpha$	4.998	3442		+ 1151.3 (1.8)
s^2	8.321	79	"		A'	8.508	8203		
$\text{Sin } \alpha$	9.996	69	"		$\text{Sec } \phi'$	6.207	4412		
C	1.505	48	"		$\Delta \lambda$	2.873	4987		750.756
	9.823	96	2d term + .667		$\text{Sin } \frac{1}{2}(\phi + \phi')$				
h^2	3.222	3	"		$-\Delta \alpha$				
D	2.381	0	"						
	5.603	3	3d term +						
			$-\Delta \phi$						

41 513

Comp
5/2/55

GEOGRAPHIC NAMES

Survey No. H-8051

Name on Survey										
	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
Alaska										1
Aleutian Islands										2
Tanaga Island									BSN	3
Tanaga Bay										4
Kulak Point										5
Cape Amagalik										6
Interno Reef										7
Harem Rock										8
Whip Island										9
Lash Bay										10
Scarab Rock										11
Tidgitux Island										12
South Bay										13
Herd Rock										14
Cape Sasmik										15
Wash Reef										16
Christmas Tree Point										17
Twin Bays										18
Pacific Ocean										19
Kanaga Pass										20
										21
										22
										23
Cape Chimu										24
										25
										26
										27

} for title

(tide station)

Names approved
7-7-54. L. Heck

(tide station)

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8051...

Records accompanying survey:

Boat sheets ..3.; sounding vols. ..12.; wire drag vols.;
bomb vols.; graphic recorder rolls .3. Env;
special reports, etc. 1. Descriptive Report; 1. Smooth Sheet;
.....

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

Number of positions on sheet 3124.
Number of positions checked 200.
Number of positions revised * 21.
Number of soundings revised (refers to depth only) 150.
Number of soundings erroneously spaced 25.
Number of signals erroneously plotted or transferred
Topographic details Time 10.
Junctions Time 80.
Verification of soundings from graphic record Time 20.

Verification by A. J. Hoffman Total time 462. Date 8/15/56

Reviewed by [Signature] Time 37. Date 8-22-57

* An additional 231 positions were revised by a Shoran correction on distances from station Den.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8051

FIELD NO. EX-2153

Alaska, Aleutian Islands, South Side of Tanaga Island

Project No. CS-218

Surveyed - June-September, 1953

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Shoran

Handlead

Sextant fixes on
shore signals

Chief of Party - S. B. Grenell

Surveyed by - H. G. Conerly, D. M. Whipp, R. F. Lanier and
J. J. Dermody

Protracted by - J. J. Dermody

Soundings plotted by - G. R. Schevon, A. C. Haglund and
W. F. Glover

Verified and inked by - A. J. Hoffman

Reviewed by - I. M. Zeskind 3-27-57

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-9935, T-9936 and T-9942 of 1953.

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

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated, except in depths less than 5 fms. where the foul character of the bottom and heavy kelp prevented development to the low-water line.

The bottom is very irregular in depths less than 20 fms. and generally smooth with occasional rises or knolls in greater depths. Submarine features such as ledges, reefs, pinnacles and shoals contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with the following surveys:

H-7006 (1944 and H-7026 (1944) on the northwest
H-7023 (1944) on the west and south
H-8056 (1953) on the southeast
H-7081 (1945) on the east
H-8053 (1953) on the northeast
H-6914 (1944) in Lash Bay

5. Comparison with Prior Surveys

H-6908 (U.S. Navy Reconnaissance), 1:20,000

This reconnaissance survey falls in the area of the present survey which lies east of long. $177^{\circ}54.0'$. A comparison between the prior and present surveys reveals differences in depths of as much as 10 fms., as for examples, in lat. $51^{\circ}41.28'$, long. $177^{\circ}53.56'$ where a prior depth of 16 fms. falls in present depths of 5.6 to 6.1 fms. These differences in depths are attributed to deficiencies in survey H-6908, such as faulty fathometer soundings and weak horizontal control which caused discrepancies at crossings of as much as 6 fms. on that survey.

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

6. Comparison with Chart 9145 (Latest print date 6-11-56)
with Chart 9146 (Latest print date 2-25-57)

A. Hydrography

Chart 9145 The charted hydrography originates with the present survey prior to verification and review. Only minor differences of 1-fm. or less between the charted and present survey depths were noted.

Chart 9146 The charted hydrography originates with the present survey after verification. Except as noted below, no differences between the charted and present survey information were noted.

The wreck charted in lat. $51^{\circ}40.17'$, long. $178^{\circ}02.86'$, from a field survey by this Bureau in 1944 (Ep. 38933), was not located on the present survey. The hydrographer states (pg. 6 Descriptive Report) that the wreck is barely visible. The wreck should be retained on the chart.

B. Aids to Navigation

There are no floating aids to navigation within the limits of the present survey. Lash Bay front and rear range markers are charted in agreement with the triangulation positions.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done, except that it was necessary to revise 231 shoran distances from station DEN by -0.06 mile in order to resolve discrepancies with sextant fix hydrography, topographic information and junctional soundings. Similar corrections were applied on one day's work on survey H-8053 (1953) to shoran distances from station DEN.
- c. All green position numbers and day letters on the smooth sheet had to be touched-up because of the weak color of the green ink.


8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The survey is considered basic and no additional field work is recommended.

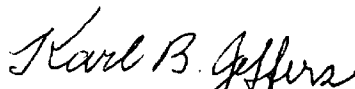
Examined and Approved:



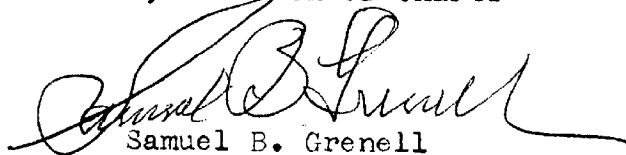
Max G. Ricketts
Chief, Nautical Chart Branch



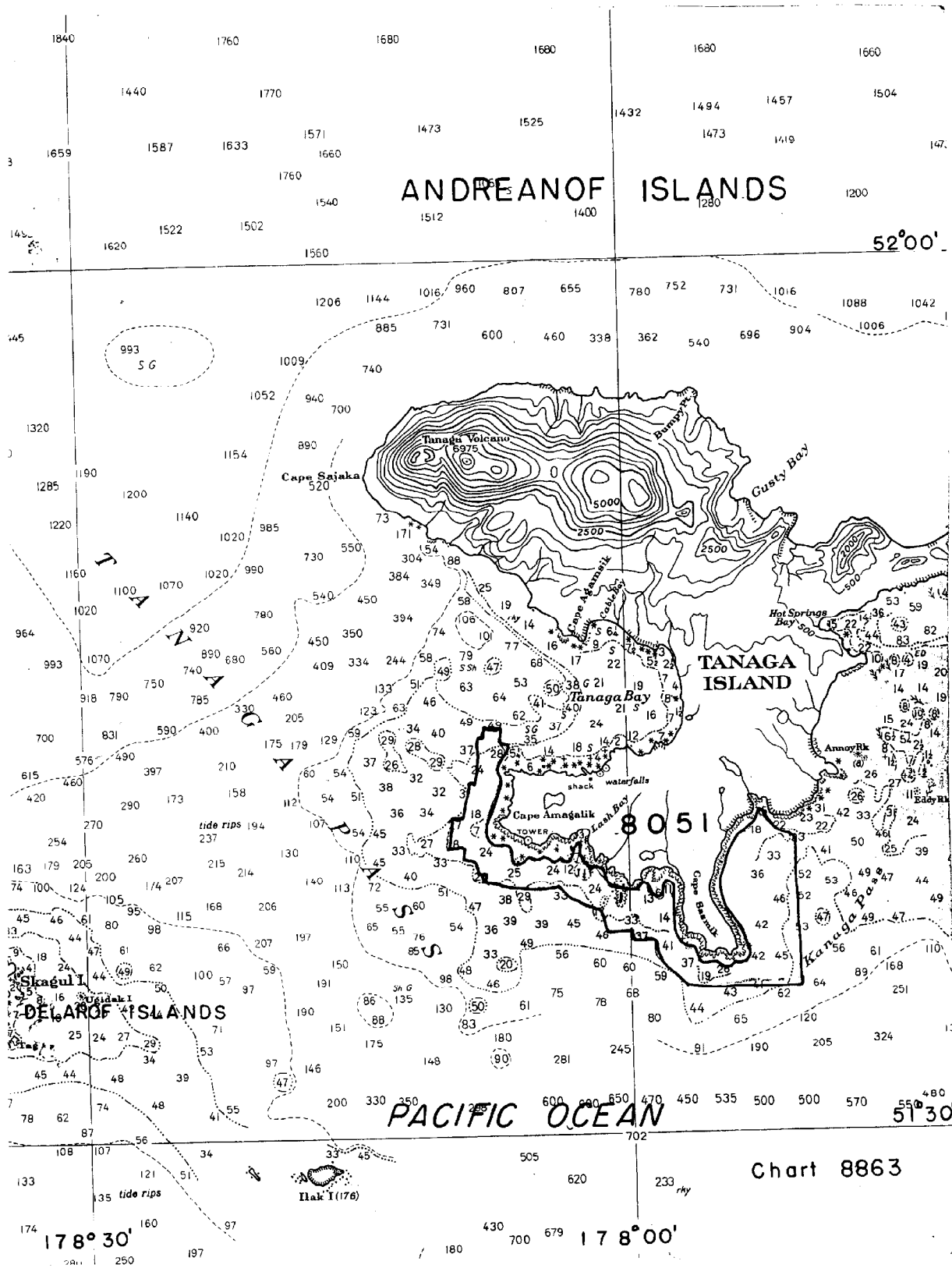
Charles A. Schanck
Chief, Division of Charts



Karl B. Jeffers
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division Coastal Surveys



RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

16 July 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
12 volumes of sounding records for

HYDROGRAPHIC SHEET 8051

Locality: Tanaga Islands (South Side), Aleutian Islands

Chief of Party: S. B. Grenell in 1953

Plane of reference is mean lower low water, reading
6.3 ft. on tide staff at Tanaga Bay, Tanaga Island
10.1 ft. below B. M. 1 (1944)

1.7 ft. on tide staff at Cape Chunu

7.8 ft. below B. M. 1 (1953)

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

Tanaga Bay = 4.0 feet
Cape Chunu = 4.1 feet

Condition of records satisfactory except as noted below:

E. C. McKay
11055 E. 2nd St.

Chief, Division of Tides and Currents.

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8051

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/5/54	9145	F. G. McGinnis	Before After Verification and Review Fully applied.
24 Jan 55	9146	HELMAC Ewen	Before After Verification and Review Fully Applied Verification after review of H-8051. Corrections to be made by compiler HFS 9/2/56
7-24-58	8863	Wittmann	Before After Verification and Review
10-20-58	9145	R. K. DeLander	Before After Verification and Review.
12/30/92	16467	Joseph Robinson	Before After Verification and Review App'd through 16462 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.