8474

Diag. Cht. No. 8862.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. EX - 2258 Office No. H - 8474

LOCALITY

State ALASKA

General locality ALEUTIAN ISLANDS - Atka I.

Locality ~~SOUTH SIDE ATKA ISLAND~~ Vicinity of Cape Tootlak

1959

CHIEF OF PARTY

G. C. MAST & E. B. BROWN

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DATE JAN 29 1960

USCOMM-DC 5087

8474

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-8474

Field No. EX-2258

State Alaska

General locality Aleutian Islands - Atka I.

Locality ~~South Side of Atka Island~~ Vicinity of Cape Tadlak

Scale 1:20,000 Date of survey 6 Aug - 6 Sep 1958 3 Jun - 10 Jul 1959

Instructions dated 16 Oct 1957 and Sup. 13 Nov 1958 & 12 Feb 1959

Vessel USC&GSS EXPLORER

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

Surveyed by Ship's Officers

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

Fathograms scaled by Ship's Crew

Fathograms checked by Ship's Officers

Protracted by D.Cummings, M.Kask, A.Korn, L.Wilkerson

Soundings penciled by D.Cummings, A.Korn, L.Wilkerson

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

REMARKS: Smooth plotting in 1958 & 1959

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey H-8474 (Field No. EX-2258)

Atka Island

Aleutian Islands, Alaska

1958 & 1959

USC&GSS EXPLORER — G.C.Mast, Comdg.

Scale 1:20,000 — E.B.Brown, Comdg.

A. PROJECT:

This survey was executed as a part of project CS-218 and in accordance with revised instructions dated 16 October 1957 and supplemental instructions dated 13 November 1958 and 12 February 1959.

B. SURVEY LIMITS AND DATES:

The limits of this survey are indicated on the index of Hydrographic Sheets. Generally, the area lies along the south side of ATKA ISLAND, extending about 4 miles offshore from 4 miles west of CAPE TADLUK on the west to SAGCHUDAK ISLAND on the east. This survey joins H-8439 (EX-2158) on the west, H-8475 (EX-2358) on the east, and H-8473 (EX-6158) on the south. No prior surveys exist in the area of this survey.

In 1958 hydrography commenced on 6 August and was concluded on 6 September 1958. In 1959 hydrography commenced on 3 June and was concluded on 10 July 1959.

C. VESSEL AND EQUIPTMENT:

During the 1958 field season, hydrography was conducted by the ship EXPLORER, Launch no. 1, and Launch no. 3. The ship worked the off-shore area west of longitude 174° 40' W; Launch no. 1, the bays and in-shore area between SAGCHUDAK ISLAND and longitude 174° 39' W; and Launch no. 3, the in-shore area between longitude 174° 48' W and 174° 51' W.

Launch no. 3 operated from the ship. Launch no. 1 based out of a shore camp located near the head of a bay 4 miles northwest

of SAGCHUDAK ISLAND.

Soundings were taken with the 808 recording fathometer operating at a calibrated speed of 800 fathoms per second. Serial numbers of fathometers are as follows:

Ship EXPLORER	No. 57-20
Launch no.1	No. SPX-158
Launch no.3	No. 57-21

Bottom samples were taken on Launch no. 1 and simultaneous comparisons made with a hand lead. Comparisons of the lead lines used are recorded in Vol. 4, pages 2-5, for Launch no. 1.

During the 1959 field season, hydrography was conducted by the ship EXPLORER, and Launch no. 2 and Launch no. 3 operating from the ship. The ship worked the off-shore area east of longitude 174° 40' W; Launch no. 2, the area in and around BEAVER BAY, and Launch no. 3, the in-shore area between longitude 174° 41.5' W and 174° 48' W.

Soundings were taken with the 808 recording fathometer operating at a calibrated speed of 800 fathoms per second and with the EDO graphic recorder operating at 60 cycles per second. Serial numbers of fathometers are as follows:

Ship EXPLORER	808 No. 57-20 & 808 No. 57-32
Launch no. 2	808 No. SPX-158 & EDO 255 No. 201 & 208
Launch no. 3	808 No. 127S & EDO 255 No. 201

Dates of operation are listed in the sounding records.

D. TIDE AND CURRENT STATIONS:

The tide station for the 1958 season was located at the head of the bay, 4 miles northwest of SAGCHUDAK ISLAND, (Latitude 52° 04.4' N and Longitude 174° 34.1' W). No time or range corrections were deemed necessary.

In 1959 the tide gage was located on the northeast side of SAGCHUDAK ISLAND, (Latitude 52° 01.8' N and Longitude 174° 28.8' W). No time or range corrections weredeemed necessary.

During the 1959 field season, two current stations were occupied. Station No. 58, (Latitude 51° 59.5' N and Longitude 174° 43.8' W), was established at CAPE TADLUK on 1 June 1959, with a continous taped record of 182 hours. Station No. 59 (Latitude 51° 59.3' N and Longitude 174 29.8' W) was established south of SAGCHUDAK ISLAND on 14 May 1959, with a continous taped record of 198 hours. Both current surveys were taken with Roberts Radio Current Meters and monitored aboard the ship.

E. SMOOTH SHEET:

The projection layout was made by hand using the polyconic

method. This projection was constructed aboard the ship EXPLORER at the Seattle District Base.

Permission was requested and granted to make the size of the smooth sheet EX-2258 42" x 60". Reasons for this request are enclosed as a letter herein.

Transfer of shoreline and topographic details has been verified in accordance with paragraph 757 in the Hydrographic Manual.

F. CONTROL STATIONS:

Three triangulation stations fall within the limits of this survey. They are as follows:

Name	Year	Chief of Party	Method of Location
MARGO	1958	G.C.Mast	1958 Tell. traverse from sta. WINDY 1957
GREEN	1957	E.H.Kirsh	1957 Tell. traverse
MARCY	1957	E.H.Kirsh	1957 Tell. traverse

Topographic stations were located in accordance with approved photogrametric methods for the establishment of photo-hydro signals on manuscripts numbered T-11542 thru T-11545.

Accuracy of control was apparently ~~weak~~ weak as was evidenced in radial plotting photo-hydro signals and during hydrography. An attempt to resolve this discrepancy in the field was conducted and a mistake was found in the 1957 identification of triangulation station MARCY, 1957.

Tellurometer traverse ties between 1957 and 1958 traverses disclosed additional differences which contribute to the accuracy of the radial plot used in the compilation of advanced manuscripts. Discrepancies were resolved prior to smooth plotting.

The results of the latter discrepancies are outlined in correspondance from the Washington Office, dated 29 September 1958, and are included herein. (See also 1958 Tellurometer Traverse, ATKA & AMLIA ISLAND, ALASKA.)

The position of signal GUY is less accurate on the smooth sheet than the other signals. The field identification of this signal was accurate, as was its location on the advance Manuscript T-11545; however, this manuscript was revised following the 1958 field season.

The photo-hydro signals were located on the revised manuscript by matching pass points and/or shoreline on the old and new blacklines, and pricking the signals through to the new blackline.

In general the pass points on the revised manuscript hold well with those on the old manuscript. The pass point just south

of signal GUY, on the revised manuscript is, however, displaced from the corresponding pass point on the old manuscript when adjacent shoreline and pass points are held. If signal GUY was located on the revised manuscript by holding the latter pass point, it is definately out of position in relation to the other signals, and the positions of signals ROC and OUT (located by 3-point fixes with signal GUY as one object) do not check.

Consequently, signal GUY was located on the revised manuscript by holding pass points and shoreline on SAGCHUDAK ISLAND and not holding the shoreline or pass point on the small island on which signal GUY is located. It is belived that this small island is slightly out of position on the revised manuscript.

During the 1959 field season, several photo-hydro signals were found to be mislocated. They were relocated by sextant cuts and the boat sheets and smooth sheet corrected accordingly.

G. SHORELINE AND TOPOGRAPHY:

The shoreline was obtained from blueline imprints of advance manuscripts T-11542 thru T-11545. Maps T-11544 and T-11545 were completely revised by the Washington Office for smooth plotting due to conditions outlined in paragraph "F" herein.

Discrepancies in topographic information, noted by the hydrographer are described as follows:

Kelp boundaries on the southwest shore of SAGCHUDAK ISLAND, and in the vicinity of ~~latitude~~ longitude 174° 32.3' W and ~~longitude~~ latitude 52° 01.1' N were revised by the hydrographer.

Location of possible rocks awash, shown at latitude 52° 04.3' N and longitude 174° 30.6' W and latitude 52° 01.1' N and longitude 174° 32.3' W were not identified by the hydrographer. Both were not visible nor did soundings indicate any shoal depths.

The bare rock at latitude 52° 03' N and longitude 174° 30.8' W was identified as a rock awash bare 4' at MLLW.

The bare rock at latitude 52° 02.2' N and longitude 174° 34.6' W was not verified but is definately shoal with breaker and tide rips visible.

The reef at latitude 52° 00.6' N and longitude 174° 32.2' W was not bare at the time of the survey. Tide rips and breakers prevented determination of the least depth.

A steep broken coastline made delination of the low waterline impractical.

H. SOUNDINGS:

During the 1958 field season all soundings were taken with 808 fathometers, (see also section "C" hercin).

In Launch no. 1 the inital was set to read correct at 2 and 3 fathoms as measured with m the bar, therefore, the index correction is zero except when the initial deviates from the predetermined value. All soundings in Launch no. 1 were on the "A" scale and there is no phase correction applicable for the 1958 season.

Launch no. 3 operated with the initial set at zero and the ship with the initial set at two fathoms. Appropriate corrections were applied as necessary. No phase corrections were applied to Launch no.3's work during the 1958 season, on this survey, as all work was done on the "A" scale.

During the 1959 field season, soundings were taken with both EDO and 808 fathometers, (see also section "C" herein).

Tne ship operated with the initial set at 2 fathoms and Launch no. 2 and Launch no. 3 with the initial set at zero. Appropiate corrections were applied as necessary. No phase corrections were applied to the launch work as all work was done on the "A" scale.

A tabulation of bar checks, phase comparisons, and applicable corrections are included in this report.

I. CONTROL OF HYDROGRAPHY:

All launch hydrography was controlled by visual sextant fixes. Control of ship hydrography was by SHORAN, using stations MAR and SAN during 1958, and Stations SANDY and MARCY during 1959. Some inshore lines were run using one Shoran station and one sextant angle to obtain a better intersection of arcs.

See also the special SHORAN reports submitted for the 1958 field season and for the 1959 field season.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for charting. Junctions with adjacent surveys are good and depth curves can be drawn.

The control used for some hydrography was weak; usually because poor fixes were used. No anomalies exist because of this weak hydrography, however. Soundings on questionable portions agree with adjacent hydrography. Questionable positions are as follows:

Launch no. 1	65a-67a, 75h-78h, 89h, 90h
Launch no. 3	10j-13j, 15j-16j, 37j-38j, 45j
EXPLORER	1C-4C

Some sounding positions have been omitted to reduce conjestion in a small cove west of station GREEN. These positions have been plotted on a subplan on the smooth sheet.

During the 1959 field season, several investigations were made of shoals found in 1958. For one investigation it was necessary to use a hydro signal (ICE) which falls off the limits of the smooth sheet. (Signals built in 1958 had faded and could not be used.) Positions 6m through 21m, Launch no. 3, were plotted on an overlay from sheet H-8475 (EX-2358) and the least depths were transfered to the smooth sheet. Included also on this overlay is another investigation which was too crowded to plot directly on the smooth sheet. This investigation consists of positions 42m thru 47m, Launch no. 3.

K. CROSSLINES:

Examination of crossings on the smooth sheet proved satisfactory, showing reasonable agreement for rough bottom area.

Nautical miles of hydrography totaled 1110.1 with a crossline percentage of 10.4 %. Excess crosslines are a result of extensive developments and examinations.

L COMPARISON WITH PRIOR SURVEYS:

No prior surveys exist.

M. COMPARISON WITH CHARTS:

No soundings are charted in the area of this survey.

N. DANGERS AND SHOALS:

DANGER	LAT. N	LONG. W	REMARKS
Possible rock	52° 04.35	174° 30.6	Delete from Manuscript; no evidence found.
Possible rock	52° 01.05	174° 32.3	Delete, no evidence found
Shoal	52° 00.5	174° 28.9	2.1 fathoms
Shoal	52° 03.3	174° 31.9	6.1 fathoms
Shoal	52° 02.15	174° 36.6	1.5 fathoms
Shoal	52° 02.3	174° 29.63	0.7 fms, breaks
Shoal	52° 02.4	174° 30.8	7.7 fathoms
Shoal	52° 02.6	174° 32.3	2.3 fms, breaks, foul
Rock awash	52° 03.1	174° 28.9	(3ft) MLLW
Shoal	52° 00.0	174° 32.8	14 fm in 35, devel. adequate
Shoal	51° 58.1	174° 31.5	21 fm in 40, devel. adequate
Shoal	52° 00.9	174° 39.6	5.4 fathoms
Rock awash	52° 01.2	174° 39.15	awash MLLW
Rock awash	52° 01.76	174° 39.8	(1ft) MLLW
Rock awash	52° 01.85	174° 40.35	(7ft) MLLW
Rock awash	52° 02.53	174° 41.0	(3ft) MLLW
Rock awash	52° 05.3	174° 31.7	awash MLLW
Bare rock	52° 03.6	174° 29.8	bare 3ft at MHW

The area around latitude 52° 01.1' N and longitude 174° 32.1' W is foul; bare rocks, reefs, and breakers are apparent on the smooth sheet.

C. COAST PILOT INFORMATION:

Two bays were surveyed during the 1958 field season for suitable anchorages, as a part of this survey, namely: KOBAKOF BAY and the first un-named bay to the west.

The best entry to KOBAKOF BAY, from the south, is self evident from data recorded on the smooth sheet. The water is deeper toward SAGCHUDAK ISLAND and the fathograms indicate a smooth unbroken bottom in depths over 30 fathoms. The main hazard to navigation is the rock which bares 3ft at MLLW at latitude 52° 03.05.1' N and longitude 174° 28.9.1' W. In calm weather and at high tide the presance of this rock is not easily detected.

The pass to the north of SAGCHUDAK ISLAND is generally foul, containing much kelp and shoal areas which break in a moderate swell. The use of this pass should be confined to small craft operated by people having local knowledge.

The first bay to the west of KOBAKOF BAY provides an excellent all-weather anchorage. However, entry to this bay is thru close quarters which border on dangerous rocks and shoals. The best approach is given in the Special Coast Pilot Report submitted at the end of the 1959 field season.

Good holding bottom and excellent protection from off-shore swells can be found at latitude 52° 04.4.1' N and 174° 32.0.1' W. The ship EXPLORER anchored here in 1958.

The area outside of the channel, on the west side of SAGCHUDAK ISLAND, is very broken and intersperced with rocks which are generally evident to the surface navigator. Navigation between the charted rocks latitude 52° 00 to 52° 02.1' N and longitude 174° .31 to 174° 33.1' W is not recommended.

The small bays, between KOBAKOF and BEAVER BAYS, which were not discussed above, offer some protection for small vessels, but the bottom is generally broken and the lee afforded from on-shore winds is neglible.

The shoal water area of the first bay west of KOBAKOF, at latitude 52° 04.5.1' N and 174° 33.8.1' W is a tidal pond and is only accessible to a launch through a restricted entrance during periods of high tide.

BEAVER BAY was surveyed during the 1959 field season. This bay offers some protection for small vessels. Entry can be made along the east side of the bay. Consideration must be given to three rocks, two of them close to the entrance and one farther off shore.

The western part of BEAVER BAY is fairly deep for small vessel anchorage and too small for large vessel shelter.

During the 1959 field season the ship EXPLORER anchored at the entrance to BEAVER BAY at latitude 52° 01.1'N and longitude 174° 40.3 and experienced good holding bottom in 22 to 23 Fathoms.

The bottom in BEAVER BAY is mostly fine gray sand and has good holding properties.

P. AIDS TO NAVIGATION:

There are no aids to navigation within the limits of this survey.

Q. LANDMARKS FOR CHARTS:

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

R. GEOGRAPHIC NAMES:

The following names are charted on this survey;

1. Cape Tadluk — USC&GS Chart 8862
2. Beaver Bay
3. Sagchudak Island
4. Kobakof Bay
5. Atka Island*
6. Pacific Ocean

It is recommended that the first bay west of KOBAKOF BAY be named EXPLORER BAY.

noted & recorded
Jan 1960

Z. TABULATION OF APPLICABLE DATA:

DATA	DATE FORWARDED
1. Smooth Sheet	
2. Boat Sheets, 4 each	
3. Sounding Volumes 1 thru 23	
4. Fathograms, 9 envelopes	
5. Magnetic Observations MARCY 1958	2 Sep 1958
6. Tide Marigrams, 1958	2 Sep 1958
	10 Sep 1958
7. Tide Marigrams, 1959	2 Jul 1959
	10 Aug 1959
	11 Sep 1959
8. Shoran Report, 1958	9 Jan 1959
9. Shoran Report, 1959	22 Oct 1959
10. Shoran Plotting Sheets	
11. Notes for Revision of Coast Pilot	26 Oct 1959
12. Tellurometer Traverse, 1958	29 Aug 1958
13. Manuscripts T11542 thru T-11545	
14. Nine Lens Air Photos 45985, 45991 thru 45994, & 46009.	

Respectfully submitted by

Arthur C. Korn

Arthur C. Korn
Ensign C&GS

STSTISTICS FOR HYDROGRAPHIC SURVEY H-8474

(Field No. EX-2258)

USC&GSS EXPLORER

PROJECT CS-218

VOL.	VESSEL	DAY	DATE	NO.POS.	WIRE	N.MI.SDG.
1	EXPLORER	A	5 Sep 58	249	0	82.6
1-2	"	B	6 Sep 58	259	0	78.6
3	Launch 1	a	6 Aug 58	177	0	23.5
3	"	b	8 Aug 58	29	4	3.6
3	"	c	9 Aug 58	4	0	0.8
3	"	d	11 Aug 58	104	0	19.6
4	"	e	12 Aug 58	42	3	5.5
4-5	"	f	13 Aug 58	202	0	37.2
5	"	g	14 Aug58	137	0	20.1
5-6	"	h	15 Aug 58	164	0	37.1
6	"	j	16 Aug 58	172	0	33.4
6-7	"	k	18 Aug 58	93	0	16.6
7	"	l	19 Aug 58	71	0	10.3
7	"	m	26 Aug 58	85	0	16.7
7-8	"	n	27 Aug 58	174	0	24.2
8	"	p	28 Aug 58	139	2	27.3
8-9	"	q	29 Aug 58	168	0	27.3
9	"	r	2 Sep 58	224	0	34.5
9-10	"	s	6 Sep 58	194	0	21.4
11	Launch 3	a	5 Sep 58	75	0	8.2
11	"	b	6 Sep 58	170	0	24.0
TOTALS, 1958				2932	9	552.5
12	Launch 3	c	3Jun 59	31	0	4.7
12	"	d	4 Jun 59	56	0	9.9
12	"	e	9 Jun 59	154	0	26.8
12-13	"	f	18 Jun 59	139	0	27.9
13	"	g	19 Jun 59	162	0	30.7
14	"	H	20 Jun 59	174	0	29.8
15	"	j	25 Jun 59	56	0	5.1
16	"	k	8 Jul 59	25	0	2.3
16	"	l	9 Jul 59	110	0	8.1
16	"	m	10 Jul 59	49	0	2.1
17	Launch 2	a	3Jun 59	36	0	5.8
17	"	b	4 Jun 59	85	0	22.3
17-18	"	c	9 Jun 59	77	0	19.3
18	"	d	18 Jun 59	80	0	20.5
18	"	e	19 Jun 59	74	0	17.3

STATISTICS CONT.

VOL.	VESSEL	DAY	DATE	NO.POS.	WIRE	N.MI.SDG.
19	launch 2	f	20 Jun 59	63	0	10.7
19	"	g	21 Jun 59	093	0	16.3
19-20	"	h	25 Jun 59	73	0	12.8
20	"	j	8 Jul 59	20	0	1.3
20	"	k	9 Jul 59	36	0	4.0
21	EXPLORER	C	15 Jun 59	79	0	29.8
21	"	D	18 Jun 59	107	0	38.0
21	"	E	19 Jun 59	40	0	14.1
21	"	F	20 Jun 59	118	0	43.0
22	"	G	21 Jun 59	217	0	67.8
23	"	H	22 Jun 59	71	0	22.9
23	"	J	23 Jun 59	139	0	41.5
23	"	K	25 Jun 59	7	0	0.0
23	"	L	8 Jul 59	24	0	4.7
23	"	M	9 Jul 59	44	0	12.2
23	"	N	5 Aug 59	17	0	5.9
TOTALS, 1959				2456	0	557.6
Total 1958 and 1959				5388	9	1110.1

TIDAL NOTE

SHEET H-8474 (Field No. EX-2258)

Tide reducers for the 1958 field season were taken from records obtained from the Tide Gage located 4 miles northwest of SAGCHUDAK ISLAND (latitude 52° 04.4' N, longitude 174° 34.1' W)

No time or range corrections were applied.

A tide staff height of 3.1 feet corresponds to the MLLW plane of reference.

This tide gage was in operation during the following dates:

2 August - 13 August 1958

13 August - 9 September 1958

Tide reducers for the 1959 field season were taken from records obtained from the Tide Gage located on the northeast side of SAGCHUDAK ISLAND (latitude 52° 01.8' N, longitude 174° 28.8' W)

No time or range corrections were applied.

A tide staff height of 3.7 feet corresponds to the MLLW plane of reference.

This tide gage was in operation from 26 May to 15 Aug 1959.

GEOGRAPHIC NAMES LIST

SURVEY H-8474 (Field No. EX-2258)

The following names are penciled on the smooth sheet:

1. Cape Tadluk
2. Beaver Bay
3. Sagchudak Island
4. Kobakof Bay
5. Atka Island
6. Pacific Ocean

See also, section "R" of this descriptive report.

APPROVAL SHEET

SURVEY H-8474 (Field No. EX-2258)

The boat sheet and records were inspected periodically during the field season by the Commanding Officer or his representative, the field works officer.

Plotting of the smooth sheet was done under the supervision of LCDR E.W.Richards in 1958 and LCDR N.E.Taylor in 1959.

E. B. BROWN
CAPT C&GS
Comdg. Ship EXPLORER

FATHOMETER PHASE CORRECTIONS
808 Fathometer No. 57-20
1958 Season - Ship EXPLORER

A Scale	0.0	fathoms
B Scale	-0.3	"
C Scale	-1.9	"
D Scale	-2.6	"
E Scale	-2.6	"

FATHOMETER PHASE CORRECTIONS
808 Fathometer No. 57-20
1959 Season - Ship EXPLORER

A Scale	0.0	fathoms
B Scale	+0.3	"
C Scale	-0.2	"
D Scale	-0.5	"
E Scale	-0.3	"

SHORAN CORRECTIONS

1959 Season - Ship EXPLORER

Station MARCY

Dist.from Sta.(Stat.Mi.)	Correction (Stat.Mi.)
0.0 to 3.5	+ 0.010
3.5 to 7.4	0.000
7.4 to 11.3	- 0.010
11.3 to 15.1	- 0.020
15.1 to 19.0	- 0.030
19.0 to 22.9	- 0.040
22.9 to 26.8	- 0.050
26.8 to 30.7	- 0.060
30.7 to 34.6	- 0.070
34.6 to 38.5	- 0.080
38.5 to 42.4	- 0.090

Station SANDY (Ind. 1176)

8.9 to 14.5	- 0.030
14.5 to 20.1	- 0.040
20.1 to 25.7	- 0.050
25.7 to 31.2	- 0.060
31.2 to 36.8	- 0.070
36.8 to 42.3	- 0.080

Station SANDY (Ind. 572)

10.0 to 15.5	0.000
15.5 to 21.1	- 0.010
21.1 to 26.7	- 0.020
26.7 to 32.2	- 0.030
32.2 to 37.8	- 0.040
37.8 to 43.3	- 0.050

NOTE:

Use indicator 572 from beginning of working day 16 June 1959 until 0959 on 18 June 1959. Use indicator 1176 for all other SANDY values.

LIST OF SIGNALS

HYDROGRAPHIC SURVEY H-8474

(Field No. EX-2258)

NAME	ORIGIN
ABE	T-11545
ADD	T-11543
AFT	"
ALL	"
AMY	T-11544
ANN	T-11543
ART	T-11544
ASH	T-11543
BAB	"
BAN	T-11544
BAT	T-11543
BAY	T-11544
BID	T-11543
BIG	T-11544
BOB (3pt.fix)	T-11544
BOO	T-11543
BOX	T-11544
COG	T-11543
COP	"
COW	" "
CRY (sex.cuts)	"
CUE	T-11544
CUP	T-11543
CUT	T-11544
DAN	T-11543
DAK	T-11545
DEW	T-11543
DIG	"
DOG	T-11544D
DON	"
DOT	"
EAR	"
EAT (3pt.fix)	"
EGG	"
ENO	T-11543
ETO	"
EVA	T-11544
EZE	T-11543
FAP	"
FAR	T-11544
FAT	T-11543
FEE	"
FEW (3pt.fix)	T-11545
FIG	"
FIN	T-11543
FLY	T-11544
FOG	"
FRO	"
GAG	T-11543
GAP	"
GAR	"
GAS	T-11544
GREEN	GREEN 1957
GUS	T-11545
GUY	"
HAT	T-11544
HAY	"
HER	T-11543
HIP	"
HOP	T-11545
HUB	T-11543
HUG	T-11544
ICE	"
ION	T-11543
JAM	T-11545
JAR	T-11544
JAZ	T-11543
JET	"
JIM	T-11544
JOB	T-11543
JOE	T-11545
JOY	T-11544
JUG	T-11544
KEL	"
KEY	"
KIM (sex.cuts)	T-11543
KIX	"
LAB	"
LAD	T-11545
LAG	T-11543

LIST OF SIGNALS CONT.

NAME	ORIGIN	NAME	ORIGIN
LAP	T-11544	RIP	T-11544
LAY	"	ROC (3pt.fix)	"
LOW (sex.cuts)	T-11545	RUM	T-11543
MAR	MARGO 1958	RUN	T-11544
MARCY	MARCY 1957	SAG	T-11545
MAT	T-11544	SAM	T-11544
MAY	T-11543	SAN (sex.cuts)	"
MEG	"	SET	"
MOP	T-11544	SIG (sex.cuts)	T-11543
MUM	T-11542	SIR	T-11545
NAT	T-11545	SIS	T-11543
NED (3pt.fix)	"	SIT	T-11544
NOR	T-11544	SOD	T-11543
NOX	T-11543	SUB	T-11544
NUN	"	SUE	"
OBI (3pt.fix)	T-11544	TAN	T-11544
ODD	T-11542	TIT	T-11543
OLD	T-11543	TOM	T-11544
OUT (3pt.fix)	T-11544	TOY	"
PAP	T-11543	TRY	"
PAS	T-11542	TUB	T-11545
PER (sex.cuts)	T-11543	USE	T-11543
PET	T-11544	VAN	T-11545
PIE	"	VIX	T-11543
PIN (sex.cuts)	T-11543	WAC	"
POD	T-11545	WAR	"
POT	T-11544	WAX (3pt.fix)	T-11545
PRO	"	WED	T-11544
PUP	T-11542	WET	"
RAG	T-11544	WIN	T-11545
RAM	T-11542	YAK	T-11544
RAP	T-11543	YAM	T-11543
RAT (sex.cuts)	T-11544	YES	T-11544
REV	T-11543	ZIP	T-11543
RIG	T-11544	ZOO	T-11544

COPY

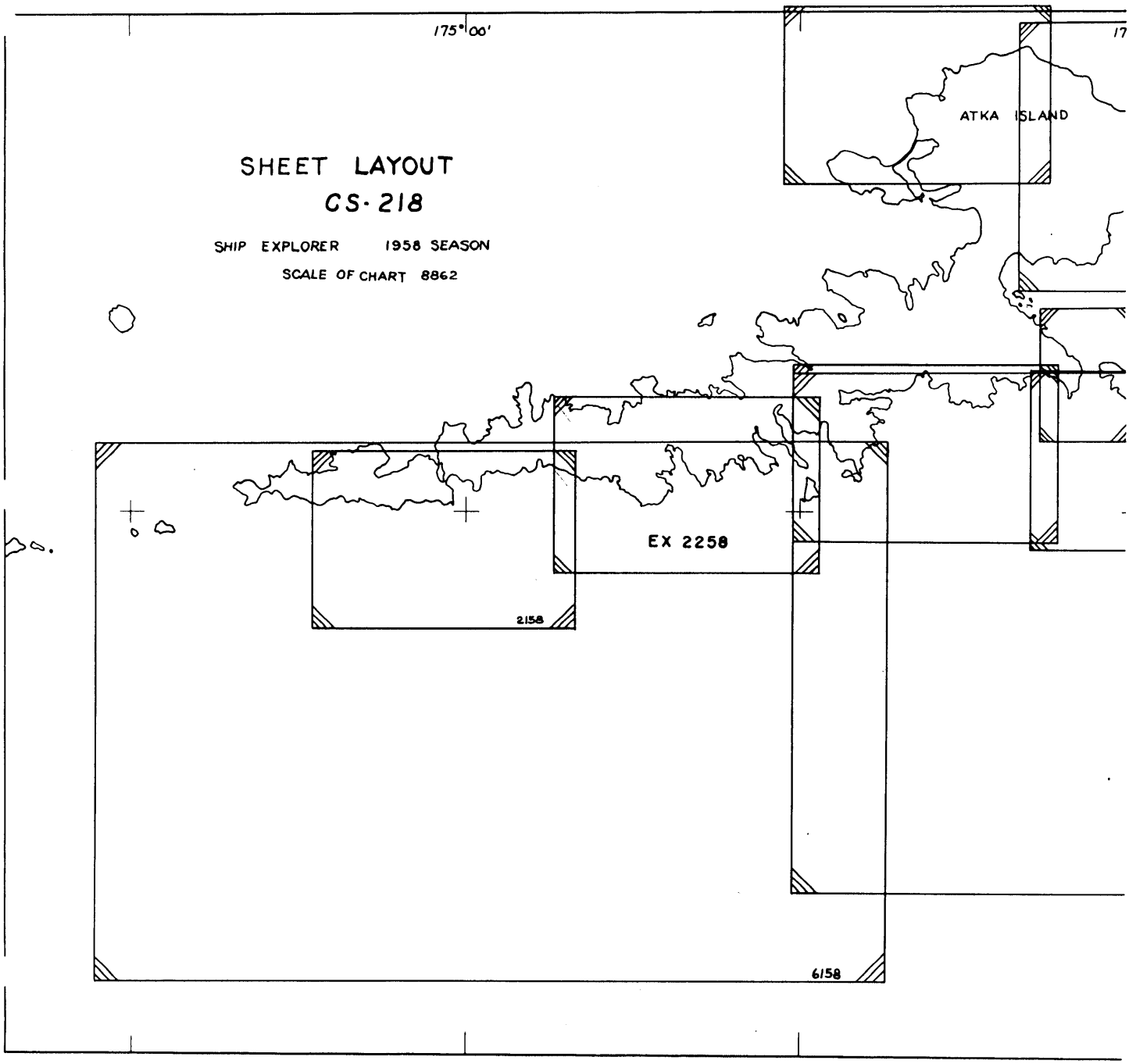
6 November 1958

TO: The Director
Coast & Geodetic Survey
Washington 25, D. C.

SUBJECT: Size of Smooth Sheet H-8474 (EX-2258)

Permission is requested to make the size of smooth sheet EX-2258, 42 by 60 inches. This sheet extends along the south side of Atka Island From Kobakof Bay, latitude 174 28' W, westward to longitude 174 52' W. The nottherly limit of the sheet is latitude 52 06' N. The southerly limit is latitude 51 55' N. Hydrography on this sheet extended from the north end of Kob akof Bay offshore to latitude 51 56' N, where a junction with sheet EX-6158 was made. In order to plot all the work on smooth sheet EX-2258, it is desirable to make the width of this sheet 42 inches.

/ Signed
G.C.Mast
CDR C&GS
Comdg.Ship EXPLORER


175°00'
17
ATKA ISLAND
SHEET LAYOUT
CS-218
SHIP EXPLORER 1958 SEASON
SCALE OF CHART 8862
EX 2258
2158
6158

cut off

FATHOMETER PHASE COMPARISONS

808 FATHOMETER NO. 57-20

1958 Season
Ship EXPLORER

A Scale	B Scale	A-B
47.0	47.3	-0.3
46.9	47.3	-0.4
46.9	47.0	-0.1
46.7	47.0	-0.3
46.7	47.2	-0.5
46.8	47.2	-0.4
46.8	47.1	-0.3
46.8	47.1	-0.3
46.9	46.9	-0.1
46.5	46.9	-0.4
	Mean	-0.31

(All depths in fathoms)

B Scale	C Scale	B-C
79.0	81.1	-2.1
79.5	81.1	-1.6
79.5	81.2	-1.7
79.8	81.2	-1.4
79.8	81.3	-1.5
79.8	81.3	-1.5
79.8	81.3	-1.5
80.0	81.3	-1.3
80.0	81.6	-1.6
	Mean	-1.58

C Scale	D Scale	C-D
120.2	120.6	-0.4
120.2	120.9	-0.7
120.5	120.9	-0.4
120.5	121.5	-1.0
120.5	121.5	-1.0
120.5	121.2	-0.7
121.0	121.2	-0.2
121.0	122.2	-1.2
	Mean	-0.70

D Scale	E Scale	D-E
151.0	151.0	0.0
151.0	151.0	0.0
151.0	151.0	0.0
151.0	151.0	0.0
151.0	151.0	0.0
151.0	151.0	0.0
	Mean	0.00

Summary:

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

INITIAL CORRECTION

M.L. #3

Sheet 2258

DATE	DAY	AVE. CORR.	TIME
6Sept. '58	a	+ 0.3	BD
6 Sept. '58	b	+ 0.3	BD
		ave. + 0.3	

The latter correction is for fathometer 57-21, ML #3 , Sheet 2258

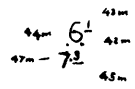
OVERLAY TO ACCOMPANY H-8474

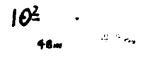
52° 03'

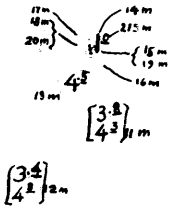
52° 02'

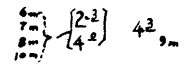
174° 31'

174° 29'









Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8474..

Records accompanying survey: Smooth sheets ..1..;

boat sheets ..4..; sounding vols. ..23..; wire drag vols. .....;

Descriptive Reports ..1..; graphic recorder envelopes ..18..;

special reports, etc. ..1 Cahier - Shoran Abstracts.....
Manuscripts T-11543, T-11544 (superseded), T-11544
Blueliines " " " "
9 Shens Air Photos. C45985, 45991 thru 45994, 46009

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 .....

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8474

Name on Survey	On Chart No. 8862 A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	BGN K	
Aleutian Islands(Title)										1
Atka Island	x								x	2
Beaver Bay	x									3
Cape Tadluk	x									4
Explorer Bay										5
Kobakof Bay	x									6
Sagchudak Island	x									7
										8
										9
										10
										11
										12
										13
										14
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										25
										26
										27

George D. Case
Geographic Names Section
1 February 1960

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8474

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

L. S. S.

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coast Survey~~

Division of Charts: R. H. Carstens 11 August 1960

Plane of reference approved in
23 volumes of sounding records for

HYDROGRAPHIC SHEET 8474

Locality Aleutian Islands, South side of Atka, Island, Alaska

G.C. Mast 1958
Chief of Party: E.B. Brown 1959
Plane of reference is mean lower low water, reading
3.1 ft. on tide staff at Sagchudak (4 miles, N.W.)
6.5 ft. below B. M. 1 (1958)

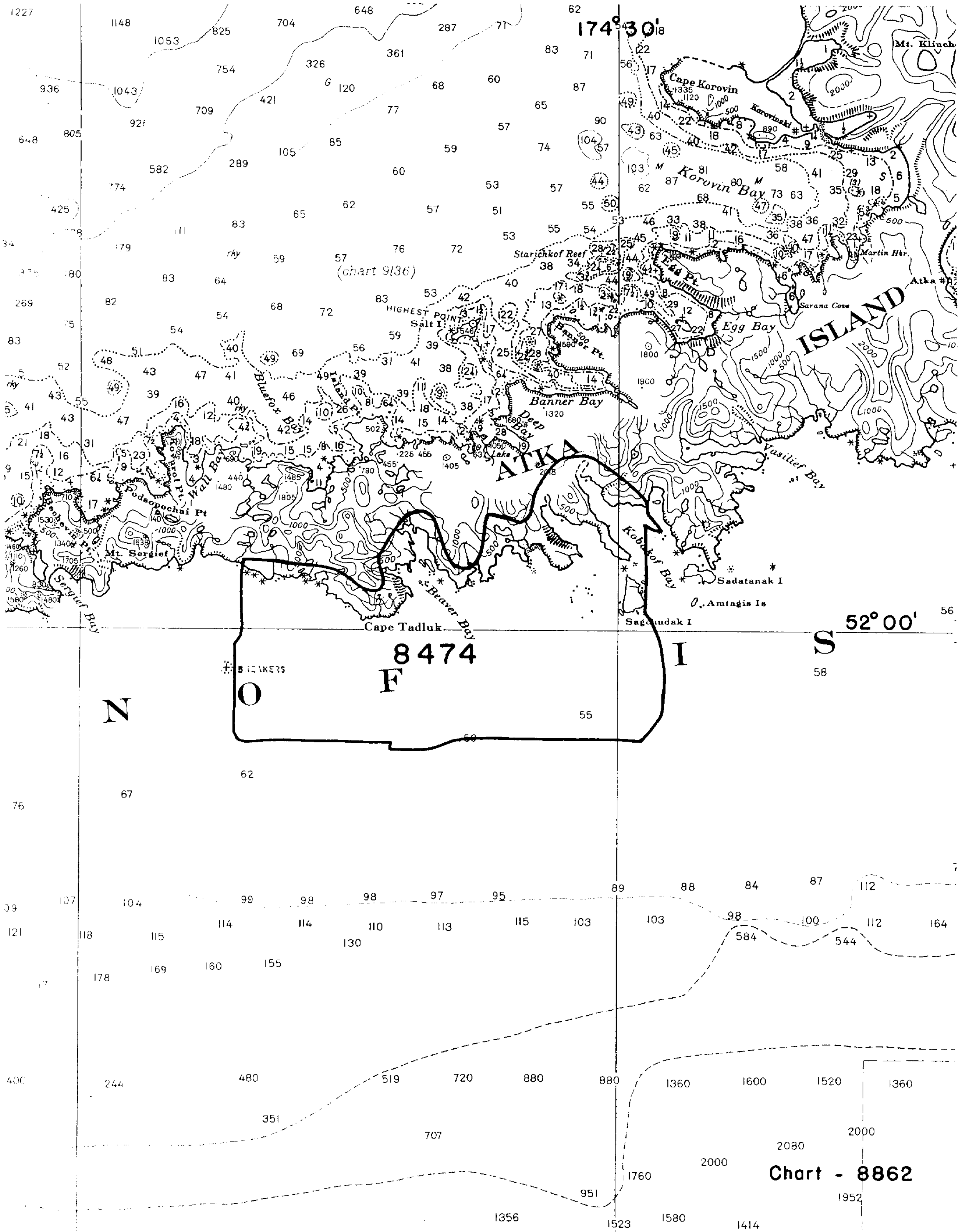
3.7 ft. on tide staff at Sagchudak Island
8.8 ft. below B.M. 2 (1959)

Height of mean high water above plane of reference is 4.6 feet.

Condition of records satisfactory except as noted below:

William Shofnuss
Chief, Tides Branch
~~Chief, Division of Tides and Currents~~

U. S. GOVERNMENT PRINTING OFFICE 877933


174°30'
52°00'
Cape Korovin
Korovin Bay
Mt. Klinch
Martin Hbr.
Sarana Cove
Egg Pt.
Egg Bay
ATKA ISLAND
Starichkof Reef
Highest Point
Salt I.
Banner Pt.
Banner Bay
Deep Bay
Lake
Bluefox Bay
Island Pt.
Wall Bay
Podsopochni Pt
Mt. Sergief
Sergief Bay
Beaver Bay
Cape Tadluk
Vasilief Bay
Kobakof Bay
Sadatanak I
Amtagis Is
Sagchudak I
(chart 9136)
Breakers
8474
N O F I S
Chart - 8862

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8474

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/10/60	8862	M. Rogers	Hydro previously completely applied thru Boat Sheets Smooth plot examined and a few sndgs. revised. Before ~~After~~ Verification and Review
27 Feb 61	9102	Earl M Broggini	Comp appd thru 8862 Before ~~After~~ Verification and Review
3-18-61	9000	J. M. Albert	Before ~~After~~ Verification and Review via dwg 9102
7/18/77	9102	M. Sager	CLASS I Before ~~After~~ Verification and Review EXAMINED, No. corrections - FULLY APPLIED
10-31/77	8862	M. Sager	BEFORE ~~Before~~ ~~After~~ Verification and Review RE-EXAMINED Added 2 sndings, revised (KL sw...) to ½ fm depth CONSIDER FINA APPLICATION.
[illegible]	[illegible]	[illegible]	[illegible] ~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.