

8046

Diag. Cht. Nos. 8700, 8802-3, & 8859

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SU-2253 Office No. H-8046

LOCALITY

State Alaska

General locality Alaska Peninsula - South Side

Locality North Side of Korovin Island

194 53

CHIEF OF PARTY

J. C. Bose

LIBRARY & ARCHIVES

DATE March 20, 1956

8046

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-8046

Field No. SU-2253

State Alaska

General locality Alaska Peninsula - South Side

Locality North Side Korovin Island

Scale 1:20,000 Date of survey 26 May 1953 to 24 Sept 1953

Instructions dated 8 Mar. 1951, Suppl. Inst. 17 Mar. 1952 and 5 Feb. 1953

Vessel SURVEYOR, Launches 3 & 4

Chief of party J. C. Bose

Surveyed by J. P. Lushene, J. C. Bull, D. H. Konichek and F. X. Popper

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

Fathograms scaled by O. H. Quade Jr., S. L. Hollis Jr., J. D. Hodges, F.X. Popper

Fathograms checked by F.X. Popper, J.D. Hodges, S.L. Hollis Jr., O.H. Quade Jr.

Protracted by C.A.J. Pauw

Soundings penciled by L.W. Eason II

Soundings in fathoms 10^{ths} feet at MLW/MLLW and are based on a velocity of sound of 800 fms/sec

REMARKS: _____

710

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY H-8046
(FIELD SU-2253)

Alaska Peninsula - South Side

Scale 1:20,000

J. C. Bose, Chief of Party

USC&GSS SURVEYOR
Launches No. 3 & 4

J. C. Bull, D. H. Konichek and F. I. Popper, Hydrographers

A. PROJECT.

Original instructions for Project CS-344, dated 8 March 1951, and Supplemental Instructions dated 7 March 1952 and 5 February 1953, to the Commanding Officer, were followed.

B. SURVEY LIMITS AND DATES.

This survey includes all areas, inshore and offshore, bounded by latitude 55° 33.4' N. on the north, and latitude 55° 24.5' on the south, longitude 159° 58.0' W. on the east and the Alaska Peninsula on the west.

This survey makes a junction on the north and east with prior survey H-8000 (1952), 1:40,000, and H-7926, 1:20,000, 1951 with development accomplished in 1952.

Junctions were also made with contemporary surveys H-8045 on the north, H-8047 on the west, and H-8049 on the south.

A large area north of Scotland Point on Korovin Island was wire dragged for Scotland Rock and the "Position Doubtful" rock north of Karpa Island was wire dragged. Neither rock was found. (See Descriptive Report to Accompany Sheet SU-2253 WD). *F.E.11 (1953)*

Hydrography was started on 26 May 1953 and ended 24 September 1953.

C. VESSELS AND EQUIPMENT.

The SURVEYOR and launches No. 3 and 4 operating from the ship were used in this survey.

The SURVEYOR, equipped with Model 808 Depth Recorder No. 128-S, was used on all of the offshore hydrography.

Launch No. 3, equipped with Model 808 Depth Recorder No. 47-S, was used for the inshore hydrography on the east side of Korovin Island, the east side of Karpa Island, the north side of Korovin Island east of longitude 160° 10.7', and some of the hydrography on the west side of Korovin Island and the east side of the Alaska Peninsula.

Launch No. 4, equipped with Model 808 Depth Recorder No. S-110, was used for the inshore hydrography on the west side of Karpa Island, the north side of

Korovin Island west of longitude $160^{\circ} 10.7'$ and most of the hydrography on the west side of Korovin Island and the east side of the Alaska Peninsula.

The turning radius of the launches is approximately 20 meters at sounding speed and that of the SURVEYOR about 400 meters.

D. TIDE AND CURRENT STATIONS.

Data obtained from the Sand Point, Shumagin Island, portable tide gage, latitude $55^{\circ} 20.2' N.$, longitude $160^{\circ} 30.1' W.$, were used to reduce all of the soundings on the entire sheet. (Tide gage falls outside the limits of the survey)

No current stations were occupied.

E. SMOOTH SHEET.

The smooth sheet projection was made by the Seattle Processing Office by hand. The shoreline and*topographic detail were penciled and verified by the Seattle Processing Office in accordance with paragraph 757 of the Hydrographic Manual.
* See Review, par. 8c

F. CONTROL STATIONS.

The positions of triangulation stations used for control on this sheet were obtained from the "List of Geographic Positions of Triangulation Stations, Anchorage to Attu Island, Alaska, Volume V."

Station Dice, hydrographic name Ice, was the only recoverable topographic station established in this area. This is photo-hydro signal number 3644.

The photo-hydro signals used, for the most part, were office selected points as found on the advanced topographic manuscripts No. T-8836 and Topographic Manuscript T-8838. (1947) Twenty-eight photo-hydro signals were field radial plotted on this sheet.

The geographic positions of four hydrographic signals were computed using sextant angles. The names and positions of these signals are: Dot, latitude $55^{\circ} 26' 12.092''$, longitude $160^{\circ} 20' 02.498''$; Lak, latitude $55^{\circ} 27' 48.18''$, longitude $160^{\circ} 15' 29.82''$; Nor, latitude $55^{\circ} 32' 42.388''$, longitude $160^{\circ} 21' 32.137''$; and Sow, latitude $55^{\circ} 32' 36.469''$, longitude $160^{\circ} 21' 32.422''$.

It was necessary to locate additional hydrographic signals by sextant cuts due to the lack of identifiable points on the photographs or misidentified points on the shore from the descriptions. (recorded in the sdg.Vols. of present survey)

For discussion of accuracy of location of control refer to the Photogrammetric Descriptive Report, Ship SURVEYOR, 1953.

All locations are considered accurate for good position location of soundings.

A list of signals used and their source will be found in Volume 1.

G. SHORELINE AND TOPOGRAPHY.

The shoreline and topographic ⁽¹⁹⁴⁷⁾ details were obtained from the topographic manuscripts No. 8836 and 8838. Generally the shoreline and the location of off-lying rocks was very good. A further check should be made upon completion of the smooth sheet. *See Review, par. 8c.*

It was impracticable to delineate the low water line on this sheet, except in the vicinity of the sand beaches because numerous boulders and off-lying sunken rocks could not be approached without danger to life and property.

H. SOUNDINGS.

All soundings were taken with Model 808 J-Depth Recorders equipped with tachometer reeds calibrated at 800 fathoms per second. Standard methods were followed to obtain the initial, index, phase and tide corrections. Refer to the Fathometer Report, Ship SURVEYOR, 1953. *with H-8045*

A lead line was used for all drift sounding, obtaining shoal depths and bottom samples. All soundings obtained with the lead line were recorded to fathoms and tenths.

I. CONTROL OF HYDROGRAPHY.

Standard methods for visual controlled hydrography were used throughout the survey of this sheet.

The photogrammetric location of triangulation stations BIG PINNACLE (VIN) 1913 and CAP ROCK 1913 (photo-hydro points Nos. 3651 and 3608) were used for hydrography instead of the computed positions so when the new radial plot was made of Korovin Island everything would be on the same datum.

J. ADEQUACY OF SURVEY.

This survey is complete and adequate to supersede prior surveys for charting.

The junctions with adjoining surveys were satisfactory. The depth curves can be adequately drawn.

No nonstandard depth curves were used on this sheet. *Review, par. 3*

K. CROSSLINES.

Approximately six percent of the lines run were crosslines. An examination of the boat sheet indicates that all crossings are satisfactory and fall within the requirements of Paragraphs 3571 and 7771 of the Hydrographic Manual.

The discrepancies at crossings in percentage of the depth can best be found after the smooth sheet is plotted and the reduced soundings are penciled on it. The soundings on the boat sheet were only reduced with predicted tides and no fathometer corrections were applied at that time. *Review, par. 2*

L. COMPARISON WITH PRIOR SURVEYS.

Comparison with prior Reconnaissance Survey H-3722 (1914), 1:100,000, is satisfactory. A few soundings seem to be misplaced slightly. *Review, par. 5* ✓

M. COMPARISON WITH CHART.

Comparison with Chart 8700 and the boat sheet is satisfactory except for the existence doubtful sunken rock north of Karpa Island which was disproved by the hydrography and wire drag. *Review, par. 7*

N. DANGERS AND SHOALS.

There were numerous shoals found in the hydrography not charted due to the lack of prior hydrography. These shoals were investigated and on the shoalest ones a hand lead was dropped. The shoals found are not considered dangers due to their depth and the areas in which they are located. ✓

The bottom is generally very irregular and in the offshore areas the shoals for the most part have a least depth of about 30 to 40 fathoms. A list of shoals follows:

At the middle of the entrance to Grosvold Bay on Korovin Island at latitude $55^{\circ} 27.37'$, longitude $160^{\circ} 11.95'$ W, with least depth of 7.4 fathoms by fathometer and 8.2 fathoms with the lead line. In the same area; 8.1 fathoms with the fathometer and 7.8 fathoms with the lead line. (Positions 79 and 81 r, launch No. 4). *(least depth 7.2 fms. pos. 97-98n)* ✓

Approximately 1 mile WNW of Henderson Island at latitude $55^{\circ} 25.48'$ N., longitude $160^{\circ} 23.29'$, with a least depth of 6.8 fathoms with the fathometer and 6.6 fathoms with the lead line. (Position 109 t, launch No. 4). ✓

Approximately 0.8 miles NW of Henderson Island at latitude $55^{\circ} 25.64'$ N, longitude $160^{\circ} 22.48'$ W, with a least depth of 7.3 fathoms. (Between positions 88 and 89 s, launch No. 4). ✓

Approximately 2.5 miles south of Guillemot Island at latitude $55^{\circ} 29.64'$ N, longitude $160^{\circ} 24.45'$ W, with a least depth of 25.1 fathoms. (Between positions 188 and 189 E, SURVEYOR). ✓

Approximately 3 miles north of Henderson Island at latitude $55^{\circ} 28.2'$ N, longitude $160^{\circ} 20.8'$ W, with a least depth of 31.1 fathoms. (Position 169 E, SURVEYOR). ✓

Approximately 4.5 miles east of Guillemot Island at latitude $55^{\circ} 32.64'$ N, longitude $160^{\circ} 13.83'$ W, with a least depth of 29.3 fathoms. (Position 154 J, SURVEYOR). ✓

Approximately 0.5 mile east of Korovin Island at latitude $55^{\circ} 24.61'$ N, longitude $160^{\circ} 08.15'$ W, with a least depth of 5.3 fathoms with a lead line. (Position 74 p, launch No. 3). ✓

Near the head of the small bay, east of Grosvold Bay on Korovin Island at latitude $55^{\circ} 26.73'$ N, longitude $160^{\circ} 10.38'$ W, with a least depth of 1.7 fathoms. (Between positions 8 and 9 m, launch No. 3). ✓

Approximately 1.5 miles NE of Grosvold Bay at latitude $55^{\circ} 28.5' N$, longitude $160^{\circ} 09.8' W$, with a least depth of 10.1 fathoms. (Position 135 c, launch No. 4). This area was wire dragged and the area was cleared with an effective depth of 54.0 feet. ✓

The last named shoal was the shoalest sounding found on a long, narrow, broken shoal running from the above location, approximately northeastward for 3.2 miles. Other shoal soundings range between ~~23~~¹⁹ and 30 fathoms. ✓

There are no uncharted dangers in this area. The ED sunken rock north of Karpa Island at latitude $55^{\circ} 32' N$, longitude $160^{\circ} 03.5' W$, was not found. An area with a 400 meter radius centering at the charted location of the rock was wire dragged and the drag cleared with an effective depth of 66.0 feet. FE 11 (1953) ✓

The 8 fathom sounding on Chart 8700 in Grosvold Bay at latitude $55^{\circ} 26.9' N$, longitude $160^{\circ} 12.8' W$, was found to be 2.9 fathoms. (chart corrected) ✓

No* sunken rock was found as charted in Grosvold Bay at latitude $55^{\circ} 26.9' N$, longitude $160^{\circ} 13.0' W$. The hydrographer reported a kelp patch in that location. ✓

* Review, #6

O. COAST PILOT INFORMATION.

The general description of this area as given in the Coast Pilot, Part II - Yakutat Bay to Arctic Ocean, pages 308 and 319, is satisfactory. The area is generally free from dangers except those noted.

Detailed Coast Pilot Notes are as follows:

Page 319 - Line 2. Delete all and substitute: "summits, separated by low land and marsh extending from Korovin Bay to Grosvold Bay."

Page 319 - Lines 3-5. Delete entire paragraph.

Page 319 - Lines 13-16. Delete all and substitute: "SCOTLAND POINT (LAT. $55^{\circ} 27' N$, LONG. $160^{\circ} 08' W$), the northeast end of Korovin Island, is distinguished by the large pyramid-shaped rock that lies 100 yards off the point. SCOTLAND ROCK, reported to lie in the passage between Korovin and Karpa Islands, has been searched for by sounding and wire drag, and no evidence of it has been found. The passage is considered safe for all vessels. A 10-fathom shoal (given as a 9-fathom shoal in the original Coast Pilot Notes), wire dragged, lies 1.8 miles northwest of Scotland Point." (Supplement page 39, reference page 319 - lines 12-16; strike out).

Page 319 - Lines 18-20. Delete all and substitute: "-chorage for small craft. The entrance is foul on both sides but safe in the middle, and there is foul ground inside on both east and west shores. The peak of the bold, rocky headland on west side of entrance is a prominent land mark."

Page 319 - Lines 26-30. Delete all and substitute: "islands is shallow water. Rocks, which should be given wide berth, extend 0.1 mile off the west end of Henderson Island, and two shoals, having a least depth of 6 and 7 fathoms lie, respectively, 1.1 miles west northwest and 0.75 mile north west of it." (Supplement page 39, reference page 319 - Line 27; strike out).

Page 319 - Lines 39-43. Delete all and substitute: "-wise, there are no outlying dangers. The E. D. rock 1.0 mile northwest of the northeast end has been searched for with wire drag and was not found." (Supplement page 39, reference page 319 - Lines 41-43; strike out).

Coast Pilot Notes were submitted as a separate report on an area basis on 25 November 1953. The least depths on some shoals have been changed in this report to make them agree with the final reduced soundings, and a supplement to the above mentioned Coast Pilot Notes will be forwarded at a later date.

P. AIDS TO NAVIGATION.

There are no aids to navigation, ferry routes, bridges, submarine cables or telegraph or telephone lines in this area. ✓

Q. LANDMARKS FOR CHARTS.

The following landmarks for charts fall on this sheet:

1. The waterfall on the north side of Korovin Island at latitude $55^{\circ} 27.55' N$, longitude $160^{\circ} 14.47' W$, (Triangulation station WAR 1914).
2. Top of rocky headland, with a deep saddle inshore of it at latitude $55^{\circ} 27.39' N$, longitude $160^{\circ} 12.83' W$, (Signal Rum, Radial Plot on T-8836).
3. Pinnacle off Scotland Point. (Triangulation station ^{o VIK}BIG PINNACLE 1913).
4. Pinnacle, tall and slender, on eastern side of Korovin Island at latitude $55^{\circ} 24.28' N$, longitude $160^{\circ} 08.78' W$. (Signal Liz, Radial Plot on T-8836).

R. GEOGRAPHIC NAMES.

No new names appear on this sheet. ✓

S. SILTED AREAS.

No silted areas were noted on the fathograms. ✓

T. BY-PRODUCT INFORMATION. None.

U-Y. MISCELLANEOUS. None.

Z. TABULATION OF APPLICABLE DATA.

The following items have been forwarded to the Washington Office:

Fathometer Report - Submitted 15 December 1953. *with H-8045*

Coast Pilot Notes - Submitted 25 November 1953.

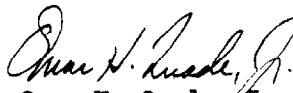
Supplement to above Coast Pilot Notes - not yet submitted. ✓

Landmarks for Charts - Submitted 20 November 1953.

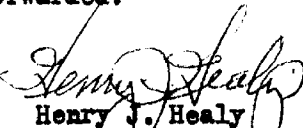
Photogrammetry Report - Submitted 24 December 1953.

Wire Drag Report - Submitted 24 December 1953. *FE 11 (1953)*

Respectfully submitted:


Omar H. Quade, Jr.
Lt. (j.g.), USC&GS

Forwarded:


Henry J. Healy
Commander, USC&GS
Comdg., USC&GSS SURVEYOR

STATISTICS FOR HYDROGRAPHIC SURVEY H-8046 (1953)
 USC&GSS SURVEYOR
 CS-344

Day Letter	Volume Number	Date	H.L. or W.S.	Number of Positions	Statute Miles of Soundings
A	1	26 May 1953	0	192	95.0
B	1 & 2	27 May 1953	0	102	38.9
C	2	17 June 1953	0	96	30.6
D	3	19 June 1953	0	74	24.4
E	3	22 June 1953	0	214	63.0
F	4	24 June 1953	0	220	73.4
G	4 & 5	25 June 1953	0	159	52.9
H	5	26 June 1953	0	159	55.1
J	6	27 June 1953	0	175	60.4
K	6 & 7	29 June 1953	0	220	66.3
L	7 & 8	14 July 1953	0	213	74.5
M	8	17 July 1953	0	230	73.4
N	8 & 9	20 July 1953	0	26	8.6
P	9	25 July 1953	0	9	0.0
Q	9	29 July 1953	0	28	0.0
R	9	10 August 1953	0	139	41.6
S	9	11 August 1953	0	22	1.3
T	9 & 10	12 August 1953	0	160	48.8
U	10	17 August 1953	0	11	0.0
V	10	19 August 1953	0	183	58.9
W	11	28 August 1953	0	17	5.7
X	11	8 September 1953	0	13	0.0
Y	11	11 September 1953	0	23	0.0
Z	11	21 September 1953	0	5	0.0
Totals			0	2690	872.8

STATISTICS (continued) H-8046 (1953)

Launch No. 3

Day Letter	Volume Number	Date	H.L. or W.S.	Number of Positions	Statute Miles of Sounding
a	12	22 June 1953	0	140	41.4
b	12 & 13	23 June 1953	0	132	45.1
c	13	24 June 1953	0	127	42.0
d	13 & 14	26 June 1953	0	133	34.0
e	14	27 June 1953	0	92	23.6
f	14 & 15	13 July 1953	0	170	37.4
g	15	14 July 1953	0	132	34.5
h	15	17 July 1953	0	98 ⁷	22.0
j	16	10 August 1953	0	108	21.3
k	16	15 August 1953	0	108	28.1
l	16 & 17	17 August 1953	0	67	16.6
m	17	18 August 1953	0	143	28.0
n	17 & 18	19 August 1953	0	140	27.1
p	18	20 August 1953	1	83	15.5
q	18	21 September 1953	0	2	0.0
r	18	24 September 1953	0	12	0.0
Totals			1	1687 ₆	417.6

480
14

STATISTICS (continued) H-8046 (1953)

Launch No. 4

Day Letter	Volume Number	Date	H.L. or W.S.	Number of Positions	Statute Miles of Sounding
a	19	19 June 1953	0	140	31.3
b	19 & 20	22 June 1953	0	173	41.0
c	20	23 June 1953	0	201	50.0
d	20 & 21	24 June 1953	0	185	41.6
e	21 & 22	25 June 1953	0	158	31.9
f	22	26 June 1953	0	151	33.8
g	22 & 23	27 June 1953	0	168	37.2
h	23	14 July 1953	0	201	43.4
j	23	15 July 1953	0	32	5.4
k	24	21 July 1953	0	177	42.7
l	24	25 July 1953	0	66	11.8
m	24 & 25	29 July 1953	0	179	40.7
n	25	10 August 1953	0	113	21.4
p	26	13 August 1953	0	147	31.5
q	26	17 August 1953	0	69	19.0
r	26 & 27	18 August 1953	3	149	33.2
s	27	19 August 1953	0	127	26.1
t	27 & 28	20 August 1953	3	152	27.5
Totals.			6	2588	569.5
TOTALS FOR THE SHEET.			7	6965	1858.9
TOTAL AREA.			125.6 square statute miles		

C O P Y

36-rjb

26 August 1953

To: The Commanding Officer
U.S.C. & G.S. Ship SURVEYOR
705 Federal Office Building
Seattle 4, Washington

Subject: Tide data, Alaska

Tide data requested in your letter of 15 August
1953 are as follows:

	Albatross Anchorage	Sand Point
MLLW (on staff)	4.0 feet	4.0 feet
MTL (on staff)	8.0 "	7.9 "
Mean range	5.4 "	5.3 "
Ratio of Ranges (on Womens Bay)	0.80	0.78
Difference, time of tide (on Womens Bay)	735 ^m	735 ^m

/s/ Earl O. Heaton
Acting Director

TIDE NOTE

1953

The portable tide gage at Sand Point, Alaska, was used to reduce all of the soundings on this sheet. This gage was located at latitude $55^{\circ} 20.2'$ N, longitude $160^{\circ} 30.1'$ W on the dock of the Aleutian Cold Storage Company. MLLW on the staff, as furnished by the Washington Office, is 4.0 feet. Refer to the Acting Director's letter (36 rjb) dated 26 August 1953, attached.

No time or range corrections were applied in reducing the soundings.

GEOGRAPHIC NAMES


An alphabetical list of all geographic names penciled on the smooth sheet will be submitted by the Seattle Processing Office upon completion of the smooth sheet.

APPROVAL SHEET

The boat sheet was inspected at the end of each day's hydrography, by Cdr. J. C. Bose, while the work was in progress.

The fathograms and record volumes have been given a final inspection of a general nature and were approved.

No plotting has been accomplished on the smooth sheet.


Henry J. Healy
Commander, USC&GS
Comdg. USC&GSS SURVEYOR

PROCESSING OFFICE NOTES
H-8046 SU-2253

E. SMOOTH SHEET

The projection was hand constructed and verified by personnel of the Seattle Processing Office.

The shoreline and topographic detail was transferred from T-8836 and T-8838 and verified in accordance with paragraph 757 of the Hydrographic Manual.

(1447)

J. ADEQUACY OF SURVEY


The junctions with H-8045⁽¹⁹⁵³⁾, H-8047⁽¹⁹⁵³⁾ & H-8049⁽¹⁹⁵³⁾ were carefully checked. Depth curves were correlated between these adjacent surveys which had already been smooth plotted. Generally only the 3 and 5 fm. curves were delineated along the shoreline.

N. DANGERS AND SHOALS

In the middle of the entrance to Grosvold Bay, Lat. 55° 27.36', Long. 160° 11.97' a shoal sounding of 7.2 fms. was obtained by fathometer. (Pos. 97 to 98 n, launch No. 4)

No special notes appear on the smooth sheet labeling shoals of 25 fms. or more. The depths and positions of shoals and dangers listed under item "N" of the hydrographer's report have been either checked or corrected in ink as per the smooth sheet.

Respectfully submitted

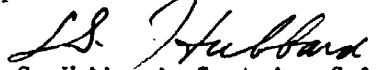

Leo W. Eason II
Cartographer, C&GS

Examined and approved



William M. Martin
Cart.-in-Charge, S.P.O.

Approved and forwarded


L. S. Hubbard, Captain, C.&G.S.
Seattle District Officer

GEOGRAPHIC NAMES ON H-8046

ALASKA PENINSULA

GBOSVOLD BAY

GUILLEMOT ISLAND

HENDERSON ISLAND

KARPA ISLAND

KOROVIN BAY

KOROVIN ISLAND

LUMBER BAY

SAN DIEGO BAY

SCOTLAND POINT

UNGA STRAIT

GEOGRAPHIC NAMES

Survey No. H-8046

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Alaska</u>											1
<u>Alaska Peninsula</u>										B64	2
<u>San Diego Bay</u>											3
<u>Guillemot Island</u>										B64	4
<u>Lumber Bay</u>	(apply name to southerson Chart 8700 and inc. p. No 9. The northerly placement is U.S.G.S. usage)										5
<u>Unga Strait</u>											6
<u>Henderson Island</u>											7
<u>Korovin Island</u>											8
<u>Korovin Bay</u>											9
<u>Korovin Bay</u>											10
<u>Grasvold Bay</u>											11
<u>Scotland Point</u>											12
<u>Karpa Island</u>											13
											14
											15
											16
											17
<u>Tide stations off sheet.</u>											18
<u>Albatross Anchorage</u>											19
<u>Sand Point</u>											20
											21
											22
											23
											24
											25
											26
											27

Names approved
4-2-56. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~5944~~ 5946...

Records accompanying survey:

Boat sheets *..4...*; sounding vols. *..28...*; wire drag vols.;
 bomb vols.; graphic recorder rolls *11-Envelopes*;
 special reports, etc. *..1-Descriptive report, 1-Smooth sheet, 1-Folder, ..*
.. Computations of Hydrographic Station Positions.

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

Number of positions on sheet		<i>6965</i>
Number of positions checked		<i>43</i>
Number of positions revised		<i>8</i>
Number of soundings revised (refers to depth only)		<i>16</i>
Number of soundings erroneously spaced		<i>-</i>
Number of signals erroneously plotted or transferred		<i>1 (VIN-Topo)</i>
Topographic details	Time	<i>31 hrs</i>
Junctions	Time	<i>29 hrs</i>
Verification of soundings from graphic record	Time	<i>12 hrs</i>

Verification by *E.E. Jones* Total time *408 hrs* Date *Oct 3 1956*

Reviewed by *J. A. Winsmore* Time *48* Date *25 Oct. 1956*

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8046

FIELD NO. SU-2253

Alaska Peninsula - South Side, North Side Korovin Island

Project No. CS-344

Surveyed - May-Sept. 1953

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Sextant fixes on
shore signals

Chief of Party - J. C. Bose

Surveyed by - J. P. Lushene, J. C. Bull, D. H. Konichek and
F. X. Popper

Protracted by - C. A. J. Paw

Soundings plotted by - L. W. Eason II

Verified and inked by - E. Thomas

Reviewed by - T. A. Dinsmore 25 October 1956

Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with the unreviewed manuscripts of air-photographic surveys T-8836 and T-8838 of 1947. Attention is directed to paragraph 8c of this review in which conflicts in rock elevations between the air-photographic surveys and the present survey are discussed.

The origin of the signals 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 are adequately delineated. The low-water line was determined where practicable. In selected localities, the 25-fm. curve has been added to emphasize bottom configuration which would not be otherwise readily apparent.

The bottom for the most part is irregular except in the deep basin on the west. Submarine features such as troughs, ridges, shoals and deeps contribute to the bottom irregularities.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with the following surveys:

H-8045 (1953) on the north
 H-7999 (1952) on the north
 H-8000 (1952) on the northeast and east
 H-8047 (1953) on the southwest
 H-7926 (1951-52) within the limits of the present survey
 between Korovin and Karpa Islands.

The junctions with H-8049 (1953) on the south will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-3722 (1914) 1:100,000

Only a few sounding lines from this early reconnaissance survey fall within the limits of the present survey. Comparison of the prior and present depths reveals no change in bottom. The following discrepancies in depths charted from the prior survey are noted:

<u>Latitude</u>	<u>Longitude</u>	<u>Prior Depth</u>	<u>Present Depth</u>
55°30.9'	160°01.0'	20	24
55°30.2'	160°01.25'	21	24
55°29.85'	160°02.25'	20	23-24
55°26.15'	160°24.9'	58	76

The above listed prior depths fall in areas of smooth bottom on the present survey. Depths on the prior surveys were obtained principally by pressure tubes. The differences in depths are attributed to the inherent inaccuracies in the pressure tube method of obtaining soundings. The prior soundings should be disregarded.

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

6. Comparison with F. E. No. 11 (1953) W.D.

This wire-drag field examination covers two detached areas, one north and northeast of Scotland Point and the other north of Karpa Island. No conflicts are noted between the effective drag depths and depths on the present survey.

7. Comparison with Chart 8700 (Latest print date 5/7/56)A. Hydrography

Charted hydrography originates with the previously discussed survey and with advance information of the present survey as shown on blueprints 50625-28 (copies of 4 boat-sheets). Inasmuch as the boat-sheet soundings were reduced from predicted tides, numerous differences of 1 - 2 fms. are found between the charted and smooth-sheet soundings. The more important discrepancies in the soundings charted from the advance information of the present survey are indicated in the following comparison:

<u>Latitude</u>	<u>Longitude</u>	<u>Charted Depth</u>	<u>Smooth-sheet Depth</u>
55°29.7'	160°13.85'	33	43
55°29.23'	160°13.9'	28	34
55°29.85'	160°09.75'	42	50
55°28.8'	160°08.25'	21	28
55°29.5'	160°01.35'	22	31
55°25.9'	160°04.65'	38	48
55°26.7'	160°10.4'	0	1.7

The unverified boat-sheet soundings (charted) should be disregarded.

The sunken rock and two rocks awash charted in the vicinity of lat. 55°27', long. 160°13', since 1917 from an undetermined source should be disregarded. Adequate development on the present survey discredits the existence of the rocks. An inspection of recent air-photos taken at low water also failed to reveal any indication of the rocks awash.

The present survey entirely supersedes the charted information

B. Aids to Navigation

No aids to navigation are charted in the area. No dangers to navigation are revealed by the survey.

8. Condition of Survey

a. The sounding records are complete; the Descriptive Report covers all matters of importance.

b. The smooth plotting was accurately done.

c. Differences amounting to 2 and 3 feet between the rock elevations by the hydrographic sub-party and elevations of identical features by the photogrammetric sub-party were resolved during verification. The elevations on the topographic manuscript were found to have been reduced with predicted tides based on a time meridian one hour earlier than that applicable to the survey area.

As the topographic manuscript had not been reviewed, the field inspection photos were obtained and all erroneous rock elevations on the manuscript were revised so as not to delay the completion of the hydrographic smooth sheet verification until after the photogrammetric review. Actual tide values were used in making the revisions.

In this particular case, the hydrography and the air-photo inspection were done concurrently by sub-parties of one ship party. The hydrographic records were reduced with actual tides, but the field inspection photos were sent to the compilation office to be reduced with predicted tides. Reoccurrence of this type of conflict and several others of a similar nature involving tides could be eliminated in part by requesting that observed tide values accompany the field inspection photographs when such data is known by the party. It appears that as a matter of good policy, at least a random check against observed tides should be made where possible even on the advance manuscripts.

An examination of several other topographic manuscripts in the project area reveals that this problem will be further encountered.

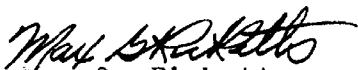
9. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

10. Additional Field Work

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

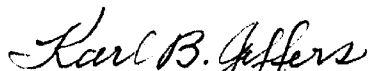
Examined and Approved:



Max G. Ricketts
Chief, Nautical Chart Branch



Charles A. Schanck
Chief, Chart Division

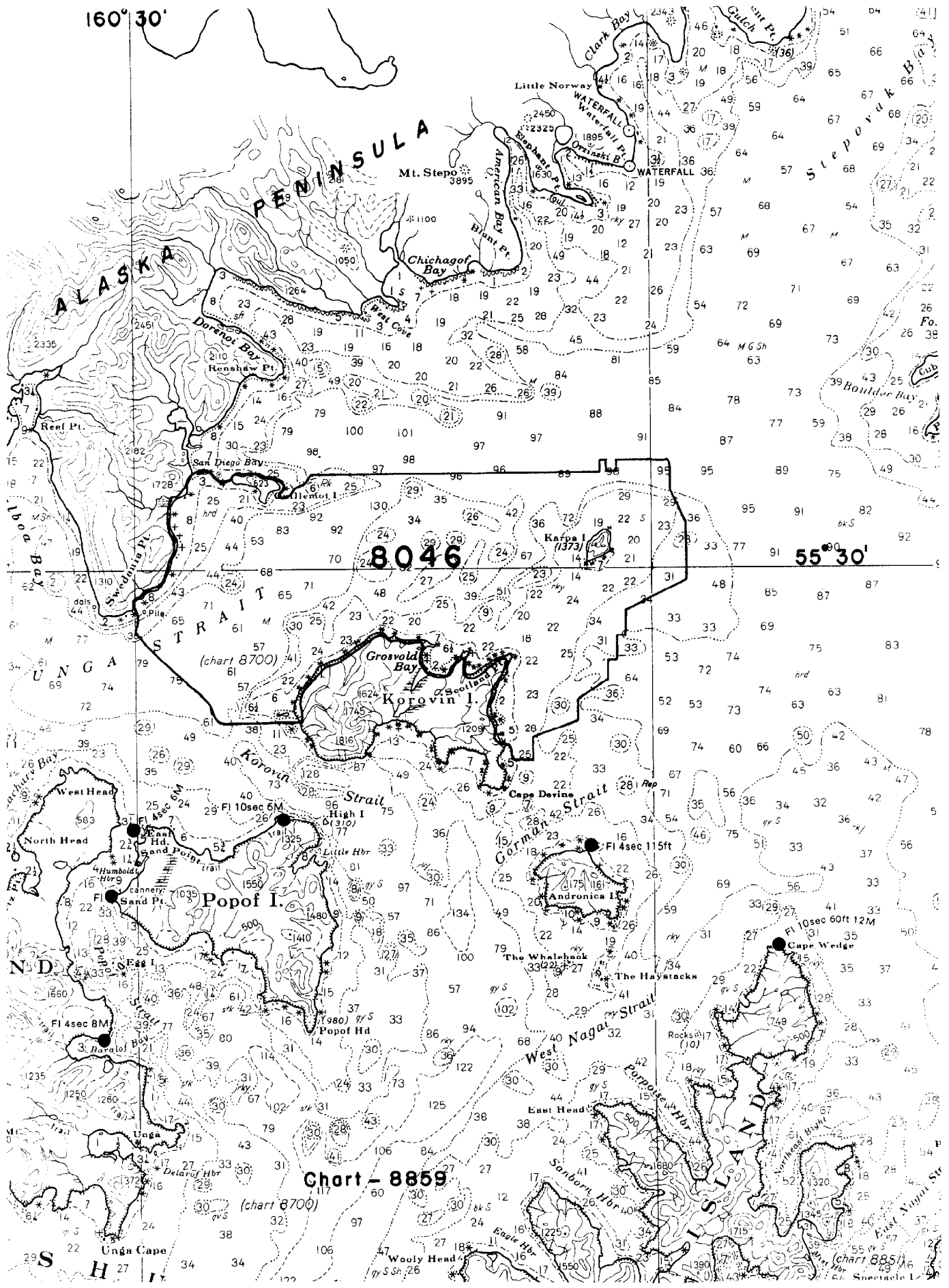


Karl B. Jeffers
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division Coastal Surveys

160° 30'



8046

55° 30'

Chart - 8859

(chart 8700)

(chart 8851)

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

11 April 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
28 volumes of sounding records for

HYDROGRAPHIC SHEET 8046

Locality Alaska Peninsula

Chief of Party: J. C. Bose in 1953
Plane of reference is mean lower low water, reading
4.0 ft. on tide staff at Sand Point
18.5 ft. below B. M. 5 (1943)

Height of mean high water above plane of reference is 6.5 feet.

Condition of records satisfactory except as noted below:



Branch
Chief, ~~Division of~~ Tides and Currents.

