

7985

Diag. Cht. No. 8252-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PA-05152 Office No. H-7985

LOCALITY

State S. E. ALASKA

General locality PERIL STRAIT

Locality DEADMAN REACH

1952

CHIEF OF PARTY

JOSEPH P. LUSHENE

LIBRARY & ARCHIVES

DATE SEP 2 1953

7985

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 7985

Field No. Pa 05152

State SE Alaska ✓
General locality Peril Strait ✓
Locality Deadman Reach ✓
Scale 1/ 5 000 ✓ Date of survey 19 June - 2 October 1952 ✓
Instructions dated 14 Apr. 1947: Sup. 14 Mar. 1950 & 17 Mar. 1952
Vessel PATTON
Chief of party Joseph P. Lushene ✓
Surveyed by Joseph P. Lushene & E.L. Jones. ✓
Soundings taken by fathometer, graphic recorder, hand lead, wire
Fathograms scaled by H. Hildahl
Fathograms checked by H. Hildahl & P. Karras
Protracted by Clarence R. Lehman
Soundings penciled by Clarence R. Lehman
Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW ✓
and are based on a velocity of sound of 800 fms/sec.
REMARKS: Smooth sheet and plotting by
Seattle Processing Office.

782

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY NO. H-7985 (PA-05152)

PERIL STRAIT, S. E. ALASKA

SCALE 1:5,000 - DATE 1952

USC&GSS PATTON

JOSEPH P. LUSHENE, COMDG.

#

A. PROJECT

Field work was accomplished in accordance with Instructions for Project CS-247, dated 14 April 1947, with Supplemental Instructions dated 14 March and 17 March 1952.

B. SURVEY LIMITS AND DATES

This survey covers the eastern end of Deadman~~X~~ Reach, Peril Strait, Western limit, 135-28-30 W. (approximately); northern limit, 57-34-15 N.; eastern limit 135-23-30 W. The survey circumscribes Krugloi, Elovoi, and Otstoia Islands, and includes Nismeni Cove. The southern boundary of the sheet is formed by the North shore of Baranof Island.

Junction is made with contemporary survey H-7988⁽¹⁹⁵²⁾ (PA-1252) on the west and north sides of this sheet. All junctions have an overlay sufficient for comparison, and comparison is satisfactory.

Field work commenced on 19 June 1952, and was completed on 2 October 1952.

C. VESSELS AND EQUIPMENT

All hydrography was accomplished by Launch No. 88, operating from the Ship PATTON. Except for beach lines, the launch was operated at approximately 4 knots, and at this speed the turning radius was 20 meters.

Soundings were taken with 808-A type recording fathometer No. 51.

Bottom samples were obtained by the launch, using a wire sounding machine mounted on deck.

D. TIDE AND CURRENT STATIONS

Soundings were reduced from the records of the Nis-
meni Cove Portable Tide Gage, which operated continuously during this
survey.

No current stations were established within the limits
of this survey during the 1952 field season.

E. SMOOTH SHEET

The smooth sheet will be constructed and plotted by
personnel of the Seattle Processing Office.

F. CONTROL STATIONS

Basic control was derived from a current second order
triangulation arc that was carried from 1951 stations south of Adams
Channel to a strong tie with a 1928 second order arc. Records, com-
putations and a triangulation report have been forwarded to the Wash-
ington Office.

With this basic control, additional ^{T-7108 a. & b. (1952)} signals were lo-
cated by graphic triangulation on Topographic Sheet PA-A-52. A few
additional signals were located by geodetic means of less than third
order, and one signal was located by sextant fix.

Control was adequate, and satisfactory for hydrography.

G. SHORELINE AND TOPOGRAPHY

The mean high water ^{T-7108 a. & b. (1952)} line was rodded in by personnel
of this party on Topographic Sheet PA-A-52. Topographic detail in-
shore from the MHW line will be obtained from the compilation of Air
Photos field inspected by this party.

Rock ledges, reef, and off-lying rocks were located
for the most part by means of sextant fixes. Those not so located
were rodded in on Topographic Sheet PA-A-52. All rock ledges, reefs,
and rocks within the limits of the sheet were located by one of these
means.

All MLLW line within the limits of the survey was de-
veloped by hydrographic lines.

H. SOUNDINGS

Soundings were taken with 808-A type recording fath-
ometer No. 51, operated on the fathom scale at a sounding velocity
of 800 fms/sec.

Phase comparisons were obtained between A and B-scales,
B and C-scales. Comparisons were taken on flat, calm days, and on
the smoothest and most level bottom in the area.

Soundings were corrected for tide, initial deviation,
index error, and phasing error.

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by three point sextant fixes on signals ashore. No unusual or substandard methods were employed. ✓

J. ADEQUACY OF SURVEY

This survey is adequate and complete, and should supersede previous surveys of the area for charting. ✓

All junctions with concurrent surveys are satisfactory, and depth curves can be adequately delineated at junctions and within the survey. ✓

K. CROSSLINES

The crosslines constitute 7.8% of hydrography on this survey. Crossings are good on all parts of the survey. ✓

L. COMPARISON WITH PRIOR SURVEYS

⁴ Comparison was made with previous survey H-2238, a 1:20,000 completed in 1895. While the general agreement between the two surveys is good, there are discrepancies as follows: ✓

1. There appears to be a slight datum error in H-2238 -- recognizable features plot approximately 40 meters NW of their true position when transferred from H-2238 to the current sheet. Considering the (four) times enlargement of the previous survey necessary for comparison/however, tends to minimize the importance of this datum error. *eight (sub-sketch @ 1:20,000)* ✓

2. The charted rock awash, at 57-33-53, 135-23-48 is non-existent. The prior survey, H-2238 shows a hydrographic feature at this location, but it is so illegible that it could not be determined if H-2238 is the source for the charted rock awash. *Review, par. 5 b. (i)*

A marker buoy was planted at the site of this charted rock on 11 July. A 7-fathom shoal was found and developed 60 meters west of the plotted position, and a marker buoy was planted on this shoal on 17 and 18 July, for a continuation of the investigation. In addition to the soundings shown on the boat sheet, 2 hours and 25 minutes, at various periods of minus tide were spent in cruising and drifting over the charted position of this rock with the fathometer operating. Approximately one hour of this time was spent in probing the bottom with a hand lead. In view of the intensive search for this charted rock, without revealing any indication of a shoal feature, it is recommended that it be deleted from the chart. *Concur* ✓

3. The charted rock awash at 57-33-52, 135-24-00 is non-existent. A marker buoy was planted at the charted position and the area was developed as shown on the boat sheet. In addition to the lines shown, at various periods of minus tide, one hour and twenty-five minutes were spent cruising and drifting over the area with the fathometer operating. Approximately forty minutes of this time was spent in probing the bottom with a hand lead. At no time was any indication of a ✓

L. COMPARISON WITH PRIOR SURVEYS cont'd.

rock awash, or dangerous shoal found. In view of the intensive search for the rock, and the total absence of shoal indications, it is recommended that it be deleted from the chart. *Concur*

4. The charted sunken rock at 57-33-51, 135-25-31 was not found. A shoal with a least depth of 1.1 fms by fathometer, and 1.2 fms hand lead was found at 57-33-49, 135-25-32, and although the difference between these two positions is slightly more than can be attributed to datum error, there can be little doubt that the sunken rock on H-2238, and the 1-fm shoal found on this survey are identical. It is recommended that the new position be used for charting. *Concur*

M. COMPARISON WITH CHART NO. 8248 and 8283

Since survey H-2238 appears to be the sole authority for Chart No. 8248 and 8283 in this vicinity, the comparisons drawn in Paragraph L are applicable to Chart No. 8248. and Chart No 8283.

N. DANGERS AND SHOALS

Dangers

1. A shoal sounding of 2.7 fms was found on Position 59u plus 45 seconds at 57-34-06, 135-25-36. At the time of the survey this constituted a danger, because it was approximately 150 meters inside the channel marked by the Cozian Shoal Lighted Bell Buoy, and Chart No. 8283 did not show a sounding that shoal. Upon notification, however, the Coast Guard remedied the situation by moving the buoy so that the 2.7 fm sounding is no longer in the channel. At this time Chart No. 8283 is being hand corrected to show the 2.7 fm sounding.
2. A group of rocks, awash at MLLW, was found at 57-33-51, 135-24-16. The largest rock is very conspicuous at lower low tides. At minus 2.0 feet tide, the bare portion of this rock is approximately 15 meters in diameter.
3. A rock, awash at MLLW, was found at 57-33-47, 135-24-17.

Shoals

1. A shoal sounding of 12.1 fms (fathometer) and 12.4 fms (handlead) was found on Position 19w at 57-34-09, 135-26-12. It is recommended that the fathometer sounding of 12.1 fms be charted.
2. A sunken rock was found on Position 10c at 57-33-51, 135-24-27. On Position 113q plus 22 seconds, it was found that this rock covers 1.0 fms at MLLW. It is recommended that the sunken rock symbol be charted.

chart actual depth

N. DANGERS AND SHOALS cont'd.

Shoals

3. A shoal sounding of 1.0 fms (fathometer) was found at position 70f plus 30 seconds at 57-33-51, 135-25-13. Probing of this area with a hand lead disclosed a rocky bottom, very uneven. It is recommended that this shoal be charted as a rock awash. *chart actual depth*
4. A shoal sounding of 4.9 fms (fathometer) on position 148q, and 5.3 fms (hand lead) on position 150q was found at 57-33-52, 135-24-00, while trying to verify or disprove a rock awash. (See Paragraph L, subparagraph 3). It is recommended that the 4.9 fm sounding be charted.
5. A 1.1 fm fathometer sounding was found on position 55u, and a 1.2 fm handlead sounding was found on position 56u, at 57-33-49, 135-25-32. This is the shoal discussed in Paragraph L, subparagraph 4. It is recommended that the ~~sunken rock symbol be moved to the new position for charting.~~ *sdg. be charted.*

The shoreline on the major portion of this survey is very rugged, with many rock ledges extending out from the shore, and with some disconnected rocks. All of these features were located, either by topographic means or by sextant fixes. Because of their proximity to shore, however, they do not constitute navigational dangers, and so will not be discussed in this paragraph. A list of rocks and ledges is appended to this report, however.

O. COAST PILOT

Since this area was covered in a Special Coast Pilot project in 1950, fully comprehensive notes will not be submitted. Isolated observations are as follows:

1. The passage from Cozian Reef Lighted Bell Buoy No. 1 and between Otstoia Island Light and Otstoia Lighted Buoy No. 2 is very narrow and because of the angle of approach from the eastward, can be most misleading. For this reason, many boats and ships that ply these waters do not use the passage, but pass to the northward of Cozian Reef Lighted Bell Buoy No. 1, and Otstoia Island, than turn to southwest so as to leave Krugloi and Elovoi Islands on the northwest. The passage so outlined is more open, and could be maintained with no increase in the number of navigational aids to be maintained.

P. AIDS TO NAVIGATION

The two floating aids to navigation, Cozian Reef Lighted Bell Buoy No. 1, and Otstoia Island Lighted Buoy No. 2, were located on topographic survey Field No. PA-A-52, and submitted on form 567. *Review, par. C B.*

The only fixed aid, Otstoia Island Light, was located as a triangulation intersection station, and was submitted on Form 567.

Q. LANDMARKS FOR CHARTS

This subject is covered on Field Inspection of Air Photos, 1952.

R. GEOGRAPHIC NAMES

A special report on geographic names has been submitted. ✓

S. SILTED AREAS

No silted areas were noted on this survey. ✓

T. - Y.

No information for these headings. ✓

Z. TABULATION OF APPLICABLE DATA

The following special reports are applicable:

1. Field Inspection of Air Photographs, 1952
2. Descriptive Report to Accompany Topographic Sheet
PA-A-52 T-7108 a.&b. (1952)
3. Triangulation Report, 1952

The following applicable data is attached to this report: ✓


1. Table of Statistics
2. Tide Note
3. Abstract of Bar Checks
4. List of Rocks
5. Abstract of Phase Comparisons

Respectfully submitted,



William D. Barbee
Ensign, USC&GS

Approved and Forwarded:



Joseph P. Luskene
CDR USC&GS
Cmdg., Ship PATTON

LIST OF ROCKS AND LEDGES ON PA-05152

DATE 1952	POSITION	VOL. & PAGE	HEIGHT*	DATE 1952	POSITION	VOL. & PAGE	HEIGHT
6/19	1a ✓	1 - 3	-7.6 ✓	7/8	1 a	7 - 3	+4.3
"	2a ✓	1 - 3	-8.6 ✓	"	2 a	7 - 3	+4.6
"	4a ✓	1 - 3	-9.49 ✓	"	3 a	7 - 3	+3.2
"	5a ✓	1 - 3	-10.4 ✓	"	4 a	7 - 4	+3.9
"	6a ✓	1 - 4	-8.2 ✓	"	5 a	7 - 4	+5.2
"	7a ✓	1 - 4	-9.7 ✓	"	6 a	7 - 4	+2.6
"	8a ✓	1 - 4	-9.2 ✓	"	7 a	7 - 5	+3.2
6/24	25c	1 - 4	+1.4 ✓	"	8 a	7 - 5	-2.9
"	26c	1 - 4	+0.2 ✓	"	9 a	7 - 5	+3.6
"	27c	1 - 4	-1.6 ✓	"	10 a	7 - 6	-4.8
"	28c	1 - 4	-3.2 ✓	"	11 a	7 - 6	-2.8
6/20	1b ✓	1 - 5	-4.6 ✓	"	12 a	7 - 6	+3.0
"	2b ✓	1 - 5	-5.1 ✓	"	13 a	7 - 6	*3.0
"	3b ✓	1 - 5	-8.8 ✓	"	14 a	7 - 7	-1.7
"	4b ✓	1 - 5	-8.0 ✓	"	15 a	7 - 7	+2.8
"	5b ✓	1 - 6	-5.4 ✓	"	16 a	7 - 7	+2.6
"	6b ✓	1 - 6	-6.1 ✓	"	17 a	7 - 7	+1.7
"	7b ✓	1 - 6	-2.0 ✓	"	18 a	7 - 8	-8.0
"	8b ✓	1 - 6	-13.2 ✓	"	19 a	7 - 8	+1.3
"	9b ✓	1 - 6	-7.1 ✓	"	20 a	7 - 8	+0.6
"	10b ✓	1 - 7	-3.1 ✓	"	21 a	7 - 8	-4.4
"	11b ✓	1 - 7	-4.1 ✓	"	22 a	7 - 9	-1.0
"	12b ✓	1 - 7	-6.9 ✓	"	23 a	7 - 9	-4.4
"	13b ✓	1 - 7	-5.4 ✓	7/9	1 b	7 - 11	-8.4
"	14b ✓	1 - 7	-4.4 ✓	"	2 b	7 - 11	-7.4
6/24	1c ✓	1 - 10	-0.9 ✓	"	3 b	7 - 12	-2.6
"	2c ✓	1 - 10	-0.2 ✓	"	4 b	7 - 12	-3.1
"	3c ✓	1 - 10	-1.5 ✓	"	5 b	7 - 12	-9.6
"	4c ✓	1 - 10	-12.0 ✓	"	6 b	7 - 13	+4.1
"	5c ✓	1 - 10	-0.8 ✓	"	7 b	7 - 13	-4.2
"	6c ✓	1 - 11	-7.1 ✓	"	8 b	7 - 13	+4.8
"	7c ✓	1 - 11	+0.4 ✓	"	9 b	7 - 13	+4.8
"	8c ✓	1 - 11	+0.6 ✓	"	10 b	7 - 14	-8.2
"	9c ✓	1 - 11	+0.6 ✓	"	11 b	7 - 14	-8.2
"	10c ✓	1 - 12		"	12 b	7 - 14	+1.6
"	11c ✓	1 - 12	+0.9 ✓	"	13 b		
"	12c ✓	1 - 12	+0.7 ✓	"	15 b	7 - 15	-5.8
"	13c ✓	1 - 12	+0.5 ✓	"	16 b	7 - 15	+1.5
"	14c ✓	1 - 12	+0.3 ✓	"	17 b	7 - 15	+0.1
"	15c ✓	1 - 13	+0.3 ✓	"	18 b	7 - 16	-8.2
"	16c ✓	1 - 13	-3.4 ✓	"	19 b	7 - 16	
"	17c ✓	1 - 13	-4.6 ✓	"	20 b	7 - 16	-6.4
"	18c ✓	1 - 13	-18.2 ✓	"	21 b	7 - 17	-5.4
"	19c ✓	1 - 13	-3.8 ✓	"	22 b	7 - 17	-5.8
"	20c ✓	1 - 14	-0.5 ✓	"	23 b	7 - 17	-4.0
"	21c ✓	1 - 14	-4.2 ✓	"	24 b	7 - 18	-4.1
"	22c ✓	1 - 14	-4.4 ✓	"	25 b	7 - 18	-0.4
"	23c ✓	1 - 14	-11.8 ✓	"	26 b	7 - 18	-11.4
"	24c ✓	1 - 14	-11.8 ✓	7/8	1 h	4 - 38	

*Heights in feet, -above MLLW; + below MLLW

SHEET 05152
DEPTH = 2.0 fms

DATE	DAY	DEPTH RECORDED	DATE	DAY	DEPTH RECORDED
6-25-52	d	1.75	7-15-52	n	1.65
"	d	1.90	7-16-52	p	1.75
"	d	1.80	"	p	1.70
6-26-52	e	1.90	"	p	1.75
"	e	1.90	7-17-52	q	1.80
"	e	1.90	"	q	1.60
6-27-52	f	1.80	"	q	1.70
"	f	1.80	7-18-52	r	1.70
"	f	1.90	"	r	1.70
7-7-52	g	1.65	"	r	1.80
"	g	1.80	7-22-52	s	1.70
7-8-52	h	1.80	"	s	1.70
"	h	1.90	7-23-52	t	1.80
"	h	1.90	"	t	1.80
7-9-52	j	1.85	"	t	1.80
"	j	1.90	7-25-52	u	1.80
"	j	R(1.55)	"	u	1.70
7-10-52	k	1.80	"	u	1.90
"	k	1.80	7-26-52	v	1.70
"	k	1.80	"	v	1.80
7-11-52	l	1.70	7-28-52	w	1.65
"	l	1.70	"	w	1.60
7-14-52	m	1.80	9-26-52	x	1.70
"	m	1.80	10-2-52	y	-1.70
7-15-52	n	1.85	"	y	-1.70
"	n	1.60			

Total = 88.50

Average = 1.77

Initial correction = +0.23

PHASE COMPARISON

1952

SHIP PATTON

PA 1252
VOL. 10, PAGE 45

<u>B</u>	<u>C</u>	<u>Corr'n (to C)</u>
78.0	78.0	0.0
80.2	80.0	+0.2
82.6	82.2	+0.4
83.0	82.6	+0.4
84.0	83.6	+0.4
84.4	84.0	+0.4
84.8	84.5	+0.3
85.4	85.0	+0.4
85.6	85.6	0.0
86.2	85.8	+0.4
		<hr/> 2.9

Corr'n = +0.3 fm

<u>C</u>	<u>D</u>	<u>Corr'n (to D)</u>
112.6	112.5	+0.1
112.7	112.6	+0.1
112.9	112.8	+0.1
112.9	112.8	+0.1
112.8	112.7	+0.1
112.8	112.7	+0.1
113.0	112.8	+0.2
112.8	112.7	+0.1
113.0	112.9	+0.1
112.9	112.8	+0.1
		<hr/> 1.1

Corr'n = +0.1 fm

VOL. 10, PAGE 46

<u>A</u>	<u>B</u>	<u>Corr'n (to B)</u>
40.5	40.3	+0.2
40.5	40.4	+0.1
40.4	40.3	+0.1
40.4	40.2	+0.2
40.5	40.3	+0.2
40.5	40.3	+0.2
40.4	40.2	+0.2
40.4	40.1	+0.3
40.4	40.1	+0.3
40.4	40.1	+0.3
		<hr/> 2.1

Corr'n = +0.2 fm

PHASE COMPARISON, Continued

PA 05152
Vol. 13 Page 13

A	B	<u>Corr'n (to B)</u>	
42.0	41.9	+0.1	
41.4	41.4	0.0	
41.2	41.0	+0.2	Corr'n = $\frac{0.3}{8} = 0.04$
40.8	40.8	0.0	
40.5	40.4	+0.1	Corr'n = 0
40.0	40.0	0.0	
39.8	39.8	0.0	
39.4	39.5	-0.1	
		<u>+0.3</u>	

05152
Vol.13 Page 13

B	C	<u>Corr'n (to C)</u>	
78.0	77.8	+0.2	
78.2	77.7	0.5	
78.0	77.7	0.3	
77.8	77.6	0.2	
77.7	77.0	(0.7)R	
77.2	76.8	0.4	
77.2	76.8	0.4	Corr'n = +0.34 fm
77.1	76.6	0.5	
77.1	76.8	0.3	
77.1	76.8	0.3	
		<u>3.1</u>	

Final corrections for phase:

A Scale = 0

B Scale = $\frac{+0.21 + .04}{2} = +0.12$ fms

C Scale = $\frac{+.29 + .34}{2} + 0.12 = +0.44$ fms

D Scale = $+.11 + .44 = +0.55$ fms

H 7985
Pa 05152

Peril Strait, SE Alaska.

Processing Office Notes.

Smooth sheet.

The projection was made by hand on Whatman paper. Shoreline and topographic signals are from planetable plate*Pa-A-52. Other signals are from 2nd and 4th order field computations by this party in 1952. Shoreledges and rocks are from hydrographic notes and the boatsheet.

Other subjects have been covered by the field party.

* T-7108 a & b (1952)


Edgar E. Smith
Cart. Engr.

8/26/53

7985

TIDE NOTE

The portable tide gage established at Nismeni Cove was used to reduce the soundings for the entire sheet. This gage was in operation for the entire period of this survey. No corrections were applied for either time or range on the entire sheet.

The plane of reference, which was MLLW, was 5.7 feet on the staff, as per Director's Letter of 18 September, Reference 36-rcb.

6 57 33.75

λ 135 24.70

7985

PA-05152

DATE 1952	DAY LETTER	VOL. NO.	H. L. & WIRE	POSITIONS	STATUTE MILES SOUNDINGS
Launch 88					
6/19	a	1	0	9	0
6/20	b	1	0	15	0
6/24	c	1	0	24	0
6/25	d	1 & 2	0	210	18.7
6/26	e	2 & 3	0	247	21.5
6/27	f	3 & 4	0	192	18.1
7/7	g	4	1	102	8.5
7/8	h	4 & 5	0	224	22.6
7/9	j	5 & 6	0	213	15.8
7/10	k	6 & 7	0	210	17.7
7/11	l	7	0	145	10.3
7/14	m	7 & 8	0	100	6.9
7/15	n	8	0	157	10.6
7/16	p	8 & 9	0	236	15.4
7/17	q	9 & 10	3	152	9.5
7/18	r	10	2	157	5.0
7/22	s	10 & 11	0	111	7.0
7/23	t	11 & 12	0	302	18.3
7/25	u	12 & 13	16	243	12.7
7/26	v	13	24	24	0
7/28	w	13	17	33	0.7
9/26	x	13	1	3	0
10/2	y	13	0	17	0.8
Totals			64	3126	220.1
Starboard dory (location of rocks)					
7/8	a	7	0	23	0
7/9	b	7	0	26	0
Grand Totals			64	3175	220.1

AREA SURVEYED: 4.60 SQ. STAT. MILES

H 7985
Pa 05152

Peril Strait, SE Alaska.

List of geographic names
penciled on smooth sheet.

Baranof Island.

Cozian Reef

Deadman Reach.

Duffield Peninsula.

Elovoi Island

Krugloi Island

+
Ostoia Island
^

Nismeni Cove

Nismeni Point

Peril Strait.

GEOGRAPHIC NAMES

Survey No. H-7985

Name on Survey	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		
	A	B	C	D	E	F	G	H	K	
<u>Southeastern Alaska</u>										1
<u>Peril Strait</u>										2
<u>Baranof Island</u>									BGN	3
<u>Deadman Reach</u>									"	4
<u>Duffield Peninsula</u>										5
<u>Krugloi Island</u>										6
<u>Elovoi Island</u>									B.G.N.	7
<u>Otstoia Island</u>										8
<u>Cozian Reef</u>									B.G.N.	9
<u>Nismeni Point</u>										10
<u>Nismeni Cove</u>										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
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Names underlined in red are approved.
10-6-53 L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7985....

Records accompanying survey:

Boat sheets .1...; sounding vols. .13...; wire drag vols.;
 bomb vols.; graphic recorder rolls .3 Eny;
 special reports, etc. .1 Smooth Sheet; .1 Descriptive Report;.....

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

Number of positions on sheet		3175
Number of positions checked		193
Number of positions revised		6
Number of soundings revised (refers to depth only)		58
Number of soundings erroneously spaced		125
Number of signals erroneously plotted or transferred	
Topographic details	Time	6 hrs
Junctions	Time	16 hrs
Verification of soundings from graphic record	Time	24 hrs

Verification by *Chester F. Kupiec* Total time *340** Date *April 20, 1955*

Reviewed by *J. A. Winsmore* Time *30* Date *13 May 1955*

* 24 hrs for identifying positions by replating

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7985

FIELD NO. PA-05152

S. E. Alaska, Peril Strait, Deadman Reach

Project No. CS-247

Surveyed - June - Oct. 1952

Scale 1:5,000

Soundings:

Control:

808 Fathometer

Sextant fixes on

Hand lead

shore signals

Chief of Party - J. P. Lushene
Surveyed by - J. P. Lushene and E. L. Jones
Protracted by - C. R. Lehman
Soundings plotted by - C. R. Lehman
Verified and inked by C. F. Kupiec
Reviewed by - T. A. Dinsmore 13 May 1955
Inspected by - R. H. Carstens

1. Shoreline and Signals

The origin of the shoreline and signals is given in the Descriptive Report. Most of the rock ledge detail was obtained by hydrographic methods and has been transferred to the smooth sheet from the boat sheet.

2. Sounding Line Crossings

Considering the irregularities in the bottom, depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The bottom for the most part drops rapidly from the low-water line to depths of 5-6 fms. Rock ledges fringe much of the shoreline in this area. Offlying rocks, reefs and shoals contribute to the general irregularities in the bottom.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-7988 (1952) on the north and west. No contemporary survey is registered at this time on the east. However, charted depths on the east are in

harmony with the present survey depths.

5. Comparison with Prior Surveys

a. H-1627 (1884), 1:20,000

The information on this early reconnaissance survey is scanty and unreliable. A comparison with the present survey would serve no useful purpose.

b. H--2238 (1895), 1:40,000

The present survey falls within the area covered by this prior survey. A comparison of the prior and present surveys reveals no appreciable changes in depths. However, the present survey discloses many shoaler depths and much critical information not shown on the prior survey. The more thorough coverage of the present survey also defines the bottom configuration more completely and clearly.

The following discrepancies with the prior survey are noted:

(1) ^{135°} The two rocks awash charted in lat. $57^{\circ}33.85'$, long. $125^{\circ}24.00'$, and lat. $57^{\circ}33.86'$, long. $125^{\circ}23.82'$, from H-2238 should be disregarded. Intensive development by fathometer sounding including hand-lead probing of the two localities at low tide failed to reveal any rocks or shoal indications thereof. An examination of the sounding records of H-2238 revealed that the signals fixing the positions of the rocks on the prior survey were apparently recorded in error. The prior rocks are considered to be out of position and should actually fall 300-400 meters westward where a group of rocks are shown on the present survey. The present investigation is considered adequate to disprove the existence of the prior rocks in their present charted positions. Detailed descriptions of the present investigations are contained in the Descriptive Report together with recommendations by the hydrographer that the rocks be deleted from the chart.

(2) The sunken rock charted in lat. $57^{\circ}33.84'$, long. $135^{\circ}25.52'$, originates with H-2238. The above locality was thoroughly developed on the present survey. Although no sunken rocks were found, a prominent shoal with a least offshore depth of 1.1 fms. in lat. $57^{\circ}33.83'$, long. $135^{\circ}25.56'$, was delineated. It is recommended that the present survey information supersede the prior information for charting.

Several soundings charted from H-2238 are considered to be out of position by appreciable amounts on the prior survey. The present large-scale survey supersedes the peior survey within the common area.

6. Comparison with Chart 8248 (C.P. Drawing No. 5, April 6, 1955)
Chart 8283 (Latest print date March 23, 1953)

A. Hydrography

Charted hydrography originates principally with prior survey H-2238 (1895) which needs no further consideration. Several rocks and critical soundings have been charted from the present survey prior to verification and review. Numerous revisions have been made to smooth-sheet soundings during verification.

The present survey entirely supersedes the charted information.

B. Aids to Navigation

The lighted buoy located in lat. $57^{\circ}34.13'$, long. $135^{\circ}25.60'$, on the present survey has been subsequently moved to its present charted position in lat. $57^{\circ}34.04'$, long. $135^{\circ}25.49'$, in accordance with information furnished in H. O. Notice to Mariners 45 (1952).

The lighted buoy charted in lat. $57^{\circ}33.60'$, long. $135^{\circ}26.79'$, is about 85 meters southwest of the survey position. Either position adequately marks the channel.

Except as noted, the aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended.

7. Condition of Survey

(a) The sounding records and Descriptive Report are complete and comprehensive.

(b) The smooth plotting was generally accurate. However, in shoal areas of close development, position numbers were inked too far from the position dots and were not identified with the position dots by connecting leaders. A considerable amount of reprotracting was required during verification in order to trace out sounding lines and to identify numerous detached positions. The verifier added the necessary leaders so that the origin of specific soundings could be determined in the future without resorting to replotting.

(c) In the reduction of rock elevations, the mean range of tide (12.4 ft.) was used on this survey by the smooth plotter

instead of the difference (14.0 ft.) between mean lower low water and mean high water. The necessary revisions were made during verification.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This is an excellent basic survey and no additional field work is required.

Examined and Approved:

Wallace A. Bruder
Wallace A. Bruder
Acting Chief, Nautical Chart Branch

E. R. McCarthy
E. R. McCarthy
Acting Chief, Chart Division

J. C. Bull
J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Earl O. Heaton
Chief, Coastal Surveys Division

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7985

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1-18-55	8248	R.K. de Lardou	Partially applied Before After Verification and Review
7/10/56	8252	N.W. Burgoyne	Partially Applied Before After Verification and Review
8-9-60	8248	Cap W. Broggy	Before After Verification and Review Completely app
8-9-60	8283	Cap W. Broggy	Before After Verification and Review Completely app
9-19-60	8252	Cap W. Broggy	Before After Verification and Review Completely app for 8248 & 8283
	8248	D.J. Kenyon	Re-applied to Re-construction 2/25/74 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.

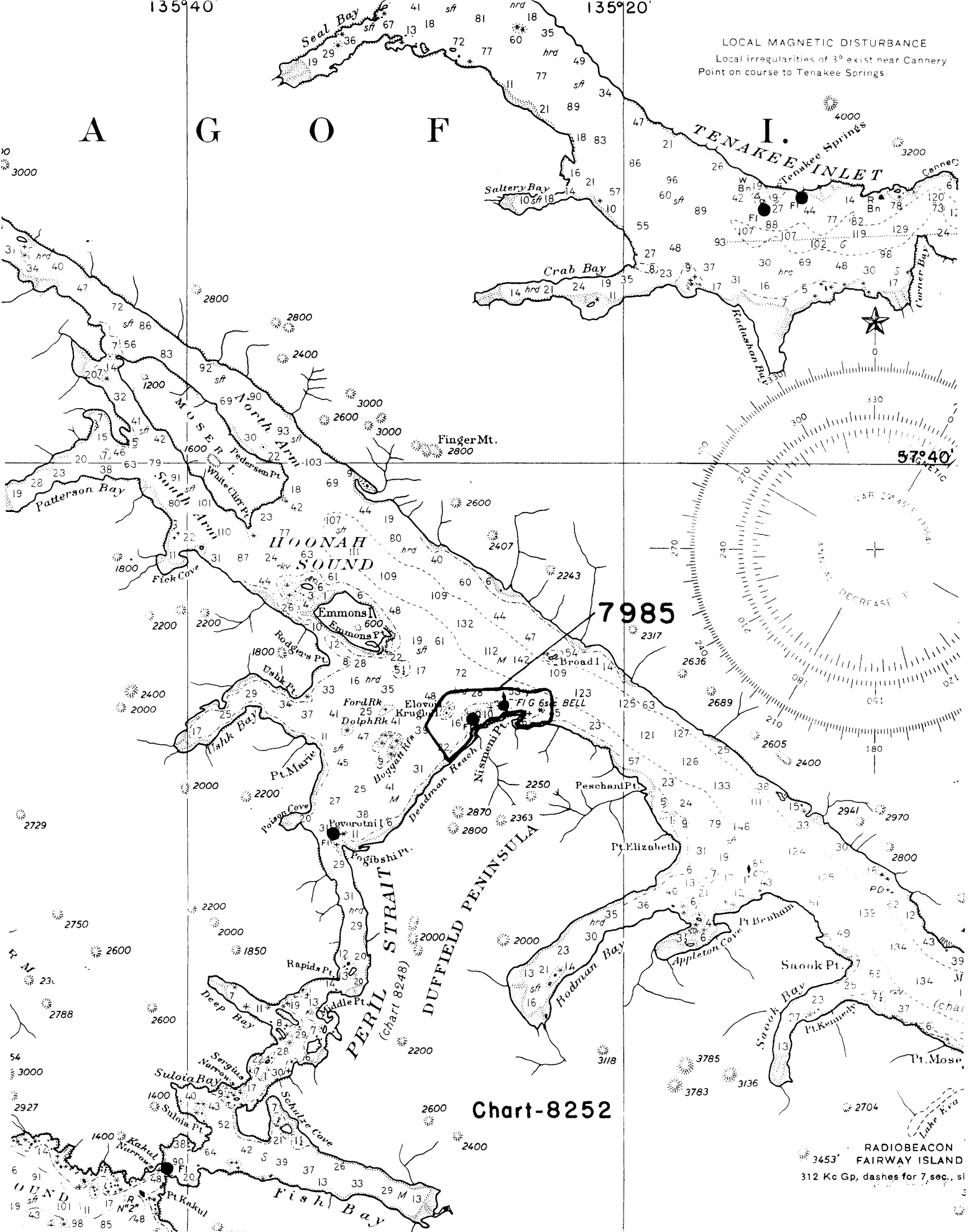
135°40'

135°20'

LOCAL MAGNETIC DISTURBANCE
Local irregularities of 3° exist near Cannery Point on course to Tenakee Springs

A G O F

10
3000



Finger Mt. 2800

7985

Chart-8252

RADIOBEACON
FAIRWAY ISLAND
312 Kc Gp, dashes for 7 sec. si

RAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

13 October 1953

Division of Charts: R. H. Carstens

Plane of reference approved in
13 volumes of sounding records for

HYDROGRAPHIC SHEET 7985

Locality Peril Strait, Alaska

Chief of Party: J. P. Lushene in 1952

Plane of reference is mean lower low water, reading
5.7 ft. on tide staff at Nismeni Cove, Peril Strait.
22.6 ft. below B. M. 1 (1952)

Height of mean high water above plane of reference is 14.0 feet.

Condition of records satisfactory except as noted below:

E.C. McKay
Section of Tides

Chief, Division of Tides and Currents.