

9126

Diag. Cht. No. 8252-2.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ... HYDROGRAPHIC
Field No. ... FA-10-4-70
Office No. ... H-9126

LOCALITY

State ... ALASKA
General Locality ... PERIL STRAIT
Locality ... RODMAN BAY

1970

CHIEF OF PARTY

CAPT. JOHN B. WATKINS, JR.

LIBRARY & ARCHIVES

DATE ... 5/23/72

9126

HYDROGRAPHIC TITLE SHEET

H-9126

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

FA-10-4-70

State Alaska

General locality Southeast Alaska Peril Strait

Locality Peril Strait, Basin of Island, Rodman Bay

Scale 1:10,000 Date of survey 5 May - 21 May 1970

Instructions dated 2 March 1970 Project No. OPR-488

Vessels USC&GSS FAIRWEATHER Launches FA-3, FA-5, and FA-6

Chief of party John B. Watkins, Jr., CAPTAIN, USESSA

Surveyed by LTJG J. C. Bishop

Soundings taken by echo sounder, hand lead, ~~and~~ DE-723, Ser. Nos. 559, 533, 529, 542

Graphic record scaled by FAIRWEATHER personnel

Graphic record checked by FAIRWEATHER personnel

Positions verified by _____

~~Plotted by~~ Nicholas Lestenkof Automated plot by Gerber plotter

Soundings ^{verified} ~~plotted~~ by Nicholas Lestenkof

Soundings in fathoms ~~5~~ at ~~200~~ MLLW _____

REMARKS: _____

*Applied to Standards
6/11/72*

*Chart
8283
8252*

Exam for NMA EF 6/7/72

Descriptive Report
to Accompany
Hydrographic Sheet H-9126 (FA-10-4-70)
Peril Strait, Alaska
Scale 1:10,000
USC&GSS FAIRWEATHER (MSS 20)
CAPT. John B. Watkins, Jr. Comdg.

A. PROJECT

The survey was accomplished under OPR-488 project instructions dated 2 March 1970, change number one dated 17 March 1970, and in compliance with the Pacific Marine Center OPORDER.

B. AREA SURVEYED

The area surveyed includes the mouth and main portion of Rodman Bay. It is bounded on the northwest and south by Baranof Island, on the northeast by Peril Strait, and extends west to longitude 135° 20.0'W. Junction on the west is with FA-10-3-70 and on the northeast with FA-20-2-70^{9/24}. The only prior survey is No. 2238, scale 1:40,000, 1895.

The control was established from 24 April to 27 April 1970, with hydrography from 5 May to 14 May, and on 21 May, 1970.

C. SOUNDING VESSELS

Hydrography was done with three FAIRWEATHER launches. The following are the color codes and position numbers applicable to each launch:

Launch FA-3	Green	Positions 2001-2238
Launch FA-5	Red	Positions 6001-6753
Launch FA-6	Brown	Positions 8001-8033

D. SOUNDING EQUIPMENT

Raytheon DE-723 fathometers, serial numbers 559, 533, and 542, were used throughout the survey, in depths extending to 85 fathoms. Echo-sounding velocity corrections were determined from serial salinity and temperature measurements, and supplemented with bar-check results and initial corrections. An abstract of cumulative corrections is included.

Least depths of some shoals were verified using a lead line.

E. SMOOTH SHEET

The signal overlay was plotted by the Gerber Digital Plotter and verified by ship personnel. The position and sounding data were logged by ship personnel, with the final smooth sheet to be plotted electronically, and verified, by personnel at Pacific Marine Center.

F. CONTROL

Visual control was used throughout the survey with signals on triangulation stations, photo-identified points (Incomplete Manuscript T-13325) and two on sextant-located points.

G. SHORELINE

Shoreline was transferred directly to the boatsheet from Incomplete Manuscript T-13325. Shoreline details were verified in the field and using field matte prints. Minor discrepancies included rock ledges initially indicated as separate rocks, and the designation as "islands" of two small areas which are connected to the mainland at mean high water. Delineation of the low-water line was generally not feasible due to the steep slope of the shore.

H. CROSSLINES

Crosslines, comprising approximately ten percent of the regular system of sounding lines, were in good agreement at intersections throughout the sheet.

I. JUNCTIONS

Junctions with contemporary surveys H-9125 (FA-10-3-70) and H-9122 (FA-20-2-70) were complete and adequate and in good agreement.

J. COMPARISON WITH PRIOR SURVEYS *and Boat Sheet*

Comparison is made with prior survey Reg. No. 2238, 1895, scale 1:40,000, and with the applicable Pre-Survey Review items.

Depths of 5 - 6 fathoms extend approximately 0.1 mile further east in Appleton Cove than is indicated on the prior survey. Several shoal areas produced soundings indicating shallower least depths than had been previously indicated:

(3)

<u>approx.</u> Latitude Longitude	Prior Survey Soundings (fms)	Pre- Survey Review (fms)	Findings of this survey (fms) with charting recom- mendations where applicable
57° 28.8' 135° 18.9'	4	4	5 & 2 Final S.S. sounding 2 ⁸ fms ✓ Should be retained on chart.
57° 29.3' 135° 17.1'		14	4⁵ & 4⁷. Should be charted as 4 fm shoal.
57° 29.1' 135° 16.9'	6	N.A.	2 Final S.S. sounding 3 fathoms ✓
57° 29.2' 135° 17.25'	4-5 4 ^{4-9 3/4}	N. A.	2 ^{1/2} Final S.S. sounding 2 ^{1/2} fms ✓
57° 29.3' 135° 17.1'	7-8 13 ^{3/4}	14	5 and 7 . Final S.S. sounding 4 ⁹ fms Chart as 4 fm shoal. ✓
57° 30.0' 135° 17.0'	5-6	6	1 ^{1/2} . Final S.S. sounding 1 ³ fms Chart as 1 fm shoal. ✓
57° 30.08' 135° 16.8'	8 ^{1/2}	8	8 . Final S.S. sounding 7 ² fms Chart as 6 fm shoal. ✓
57° 29.78' 135° 16.6'	8	8	4. Final S.S. sounding 4 ⁹ fms Chart as 4 fm shoal. ✓
57° 30.4' 135° 16.0'	25	N. A.	11 - least depth in area on present survey ✓
57° 30.4' 135° 15.5'	18 ^{1/2}	19	12. Final S.S. sounding 13 fms Chart as 12 fms. ✓ Note above item.
57° 29.7' 135° 14.4'	1	1	7. Final S.S. sounding 1 ⁶ fms Retain on chart as 1 fm shoal. (See REVIEW) ✓
57° 29.8' 135° 14.3'	1 ^{1/4}	3	3 ⁶ . Final S.S. sounding 3 ² fms Retain on chart as 3 fm shoal. ✓

Developments were run to delineate and determine least depths on ^{the} item 2nd of the pre-survey review. The shoal area extends from near Lat. 57° 29.8', Long. 135° 16.3' to near Lat. 57° 29.9', Long. 135° 15.8'; previous survey showed least depths of 8 fms. Three points along the shoal lie 4 - 5 fms deep with the least depth found 3^{1/2} fms, near the southern end. at lat. 57° 29.59, long 135° 16.23

K. COMPARISON WITH CHART

Comparison is made with Chart Number 8283, scale 1:40,000, 5th edition, May 12, 1969, and the character of the bottom is generally the same as delineated on the chart. Soundings on some shoal areas showed them to have shoaler least depths than previously charted. ✓

These shoals found to be shallower, could, in some cases, constitute newly found hazards to navigation. Refer to the tabulation in the preceding section.

L. ADEQUACY OF SURVEY

The survey is considered complete and adequate to supersede prior surveys for charting. ✓

M. AIDS TO NAVIGATION

The only aid to navigation in the area of the survey is a black can buoy over a three-fathom shoal approximately 250 yards north-northeast of Rodman Rock. ✓

N. STATISTICS

	<u>FA-3</u>	<u>FA-5</u>	<u>FA-6</u>
Positions	238	753	33
Sounding line (n.m.)	39.5	117.0	2.0
Bottom samples	00	06	06
Total area surveyed:	5.0 square nautical miles		
Leadline soundings:	Three		
Oceanographic stations:	None		
Magnetic stations:	One (GIN 2, 1970)		

O. MISCELLANEOUS

Submarine topography in the area is submerged mountain landscape. The geomorphology is primarily glacial in origin, and some interesting features may be identified from the bottom contours. The narrow portion of the bay on the southwest portion of the sheet shows a slightly asymmetrical, "typical" U-shaped glacial valley profile, terminating in a basin where it enters the main portion of the bay. The basin opens through a very narrow gorge into the ✓

deeper waters of the main channel of Peril Strait. It may be of interest to consider the circumstances which caused the Rodman Bay glacier to apparently terminate rather than joining the main glacier which must have occupied the Peril Strait channel. Or, perhaps the rock in the vicinity of the "gorge" was particularly durable and was overridden by the glacier. The comments offered here are not intended as considered explanation of the geological history of Rodman Bay, but instead to call attention to what might be a source of valuable information to geologists -- the data showing the submarine geomorphology in all of the Peril Strait region.

P. RECOMMENDATIONS

None. ✓

Q. REFERENCE TO REPORTS

1. Season's Report, USC&GSS FAIRWEATHER, 1970. (To be forwarded). ✓
2. Magnetics Report, OPR-488, USC&GSS FAIRWEATHER, 1970. (To be forwarded).
3. Field Edit Report, OPR-488, USC&GSS FAIRWEATHER, 1970. (To be forwarded).
4. Fathometer Report, OPR-488, USC&GSS FAIRWEATHER, 1970. (To be forwarded).
5. Coast Pilot Report, OPR-488, USC&GSS FAIRWEATHER, 1970. (To be forwarded).
6. Triangulation Report, OPR-488, USC&GSS FAIRWEATHER, 1970. (Forwarded May, 1970).

Respectfully submitted,

James C. Bishop, Jr.

James C. Bishop
LTJG, USESSA

USC&GSS FAIRWEATHER

MSS 20

CAPT. John B. Watkins, Jr. Commanding

VELOCITY CORRECTIONS
Peril Strait - 1970

Corrections to be applied to the following sheet numbers:

FA-10-1-70
 FA-10-2-70
 FA-10-3-70
 FA-10-4-70
 FA-10-5-70
 FA-10-6-70
 FA-20-1-70
 FA-20-2-70

*This table not used for:
 FA-10-4-70 (11-9-26)*

Applicable Depths (fms)	Corrections (fms)
0 - 65	0.0
65 - 100	+0.1
100 - 120	+0.2
120 - 140	+0.4
140 - —	+0.5

USC&GSS FAIRWEATHER

MSS 20

CAPT. John B. Watkins, Jr. Commanding

ECHO CORRECTIONS
Peril Strait-1970

Launch FA-3 Sheet Number	Date	Correction (fms)
FA-10-1-70	4-15	+0.2
	4-16	+0.2
	4-22	No bar check
FA-10-2-70	5-19	+0.2
	5-25	No bar check
	5-26	+0.2
FA-10-4-70	5-11	+0.0
	5-12	+0.4
FA-10-6-70	5-24	+0.2
FA-20-1-70	5-20	+0.2
	5-21	+0.2
	5-22	+0.3
	5-23	+0.3
FA-20-2-70	5-07	No bar check
	5-08	+0.2
	5-21	+0.2
	5-22	+0.2

USC&GSS FAIRWEATHER

MSS 20

CAPT. John B. Watkins, Jr. Commanding

ECHO CORRECTIONS
Peril Strait - 1970

Launch FA-5 Sheet Number	Date	Correction (fms)
FA-10-2-70	4-15	+0.3
	4-16	+0.2
	4-17	+0.4
	4-22	No bar check
	4-25	+0.2
	4-26	+0.2
	4-27	+0.2
	4-29	+0.2
	4-30	0.0
	5-26	+0.2
FA-10-4-70	5-06	No bar check
	5-07	+0.2
	5-08	+0.2
	5-09	+0.3
	5-10	+0.4
	5-13	+0.2
	5-14	+0.2
FA-10-5-70	5-21	No bar check
FA-10-6-70	5-24	No bar check

USC&GSS FAIRWEATHER

MSS 20

CAPT. John B. Watkins, Jr. Commanding

ECHO CORRECTIONS
Peril Strait - 1970

Launch FA-6 Sheet Number	Date	Correction (fms)
FA-10-2-70	4-28	+0.5
	5-20	+0.1
	5-22	+0.2
	5-23	+0.2
	5-24	No bar check
FA-10-4-70	5-21	+0.3
FA-10-5-70	5-13	+0.3
	5-14	No bar check
FA-10-6-70	5-25	No bar check
	5-26	+0.2
FA-20-1-70	4-26	+0.2
	4-29	+0.4
	4-30	No bar check
	5-19	+0.3
FA-20-2-70	5-06	No bar check
	5-09	No bar check
	5-10	+0.3
	5-11	No bar check
	5-12	+0.2

INITIAL CHECK CORRECTIONS
Peril Strait - 1970

Sheet Number	Positions	Corrections (fms)
	6495-6496	-0.2
	6496-6500	-0.1
	6522-6524	+0.3
	6554-6555	-0.1
	6560-6564	-0.1
	6612-6613	-0.1
	6683-6685	-0.1
	6752-6794	-0.1
	8038-8052	-0.1
	8081-8088	-0.1
	8129-8158	-0.1
	8180-8189	-0.1
	8222-8226	-0.1
	8500-8522	-0.1
	8522-8533	-0.2
FA-10-4-70	2068-2069	-0.1
	2073-2075	+0.1
	2122-2123	+0.1
	2199-2204	-0.1
	2232-2234	+0.1
	6142-6170	-0.1
	6187-6223	-0.1
	6225-6230	+0.1
	6348-6379	-0.1
	6393-6409	-0.1
	6409-6410	-0.2
	6411-6415	-0.1
	6420-6425	-0.1
	6441-6486	-0.1
	6583-6584	-0.1
	6584-6587	-0.2
	6594-6603	-0.1
	6604-6606	-0.1
	6607-6615	-0.2
	6616-6618	-0.1
	6625-6645	-0.2
	8004-8008	-0.1

TCTI PRINTOUT FOR FA3 FA 10-4-70

202 131 1970
085500 0 0000 0201 131 000000 000000
124200 0 1001
124300 0 0000
132000 0 0001
132200 0 0000
085000 0 0004 0201 132 000000 000000
085130 0 0005
085300 0 0004
141900 0 0003
142600 0 0004
160200 0 0005
160500 0 0004

TCTI PRINTOUT FOR FA 5

FA 10- 4-70

202 126 1970

084200 0 0002 0201 126 000000 000000
095300 0 0002 0201 127 000000 000000
133900 0 0001
085200 0 0002 0201 128 000000 000000
093700 0 0001
114600 0 0002
115700 0 0003
120330 0 0002
083500 0 0003 0201 129 000000 000000
132000 0 0002
154800 0 0003
083000 0 0004 0201 130 000000 000000
090500 0 0003
093800 0 0002
094230 0 0003
094900 0 0004
103600 0 0003
104430 0 0004
113600 0 0003
124830 0 0004
095000 0 0002 0201 133 000000 000000
111400 0 0001
141530 0 0000
142000 0 0002
143930 0 0001
145800 0 0000
151900 0 0001
152200 0 0002
154600 0 0000
084000 0 0002 0201 134 000000 000000

TCTI PRINTOUT FOR FA 6 FA 10-4-70

202 141 1970

092600 0 0003 0201 141 000000 000000
093800 0 0002
094300 0 0003

LIST OF STATIONS ON H-9126 (FA-10-4-70)

<u>Name used in Hydrographic Survey</u>	<u>Latitude (° ' ")</u>	<u>Longitude (° ' ")</u>	<u>Origin of Station</u>
256	57 28 2867	135 16 2106	T-13325
257	57 28 2085	135 15 4404	"
258	57 28 3443	135 15 2532	"
259	57 28 3527	135 15 5262	"
420	57 29 1865	135 13 4316	"
421	57 27 4845	135 17 3653	"
422	57 28 0495	135 17 1056	Hydrographic
272	57 29 0142	135 20 5281	T-13325
273	57 28 2767	135 20 4908	Hydrographic
248	57 29 0000	135 17 4843	T-13325
249	57 28 5751	135 17 2725	"
250	57 28 5679	135 17 2173	"
251	57 28 5049	135 17 2616	"
252	57 28 5036	135 16 3169	"
253	57 28 3944	135 16 1974	"
254	57 28 3468	135 16 4356	"
255	57 28 2153	135 17 3396	"
240	57 29 3249	135 18 2773	"
241	57 29 2589	135 18 5865	"
242	57 29 1603	135 19 5702	"
243	57 28 3514	135 19 5526	"
244	57 28 5515	135 18 3601	"
245	57 29 0362	135 17 5203	"
246	57 29 0459	135 17 3829	"
247	57 29 0217	135 17 3859	"
101	57 31 5081	135 12 5907	CROW 1966
105	57 30 3663	135 17 2150	GIN-2, 1970
106	57 32 1839	135 19 1605	CHOP-2, 1970

S I G N A L P L O T T E R C A R D S

H-NO.-		LATITUDE	LONGITUDE	X	Y	X
09126	256	70 57282867	135162106	04115	02296	
09126	257	70 57282085	135154404	03467	02042	
09126	258	70 57283443	135152532	03140	02482	
09126	259	70 57283527	135155262	03618	02510	
09126	420	70 57291865	135134316	01354	03920	
09126	421	70 57274845	135173653	05436	00990	
09126	422	70 57280495	135171056	04981	01525	
09126	272	70 57290142	135205281	08869	03361	
09126	273	70 57282767	135204908	08805	02265	
09126	248	70 57290000	135174843	05644	03313	
09126	249	70 57285751	135172725	05273	03232	
09126	250	70 57285679	135172173	05177	03209	
09126	251	70 57285049	135172616	05254	03004	
09126	252	70 57285036	135163169	04301	03000	
09126	253	70 57283944	135161974	04092	02645	
09126	254	70 57283468	135164356	04509	02491	
09126	255	70 57282153	135173396	05391	02063	
09126	240	70 57293249	135182773	06331	04368	
09126	241	70 57292589	135185865	06872	04155	
09126	242	70 57291603	135195702	07893	03835	
09126	243	70 57283514	135195526	07863	02506	
09126	244	70 57285515	135183601	06476	03156	
09126	245	70 57290362	135175203	05707	03431	
09126	246	70 57290459	135173829	05467	03463	
09126	247	70 57290217	135173859	05472	03383	
09126	101	70 57315081	135125907	00588	08863	
09126	105	70 57303663	135172150	05173	06451	
09126	106	70 57321839	135191605	07173	09757	

000000

SIGNAL LIST

FA-10-4-70

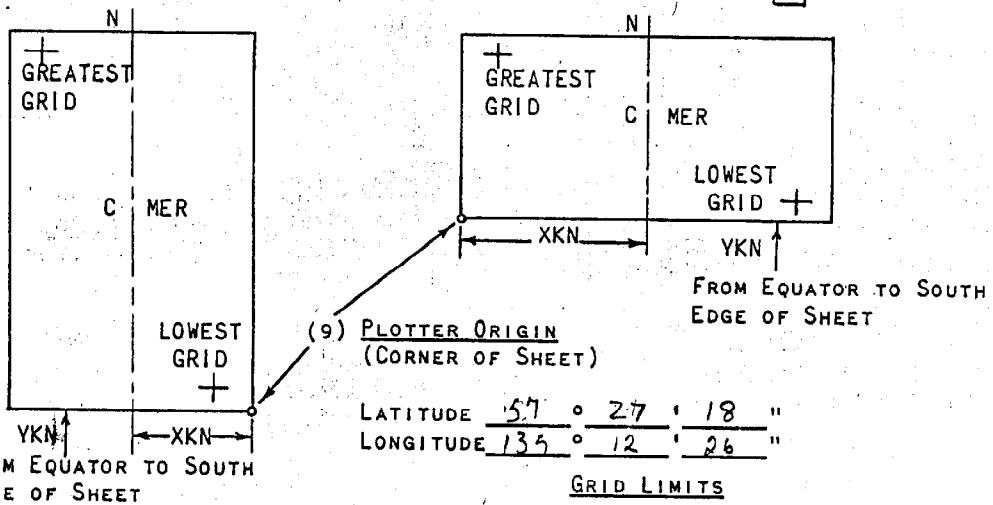
EDAT No. 20030

256	57 28 0887	135 16 0351	256	✓
257	57 28 0645	135 15 0734	257	✓
258	57 28 1065	135 15 0422	258	✓
259	57 28 1091	135 15 0877	259	✓
420	57 29 0577	135 13 0719	420	✓
421	57 27 1499	135 17 0609	421	✓
422	57 28 0153	135 17 0176	422	✓
272	57 29 0044	135 20 0880	272	✓
273	57 28 0856	135 20 0818	273	✓
248	57 29 0000	135 17 0807	248	✓
249	57 28 1779	135 17 0454	249	✓
250	57 28 1757	135 17 0362	250	✓
251	57 28 1562	135 17 0436	251	✓
252	57 28 1558	135 16 0528	252	✓
253	57 28 1220	135 16 0329	253	✓
254	57 28 1073	135 16 0726	254	✓
255	57 28 0666	135 17 0566	255	✓
240	57 29 1005	135 18 0462	240	✓
241	57 29 0801	135 18 0977	241	✓
242	57 29 0496	135 19 0950	242	✓
243	57 28 1087	135 19 0921	243	✓
244	57 28 1706	135 18 0600	244	✓
245	57 29 0112	135 17 0867	245	✓
246	57 29 0142	135 17 0638	246	✓
247	57 29 0067	135 17 0643	247	✓
101	57 31 1572	135 12 0983	101	✓
105	57 30 ¹¹³³ 0205	135 17 0358	105	✓
106	57 32 0569	135 19 0267	106	✓

12

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

- (1) PROJECT No. 488 (4) REQUESTED BY FAIRWEATHER
 (2) H No. 9126 (5) SHIP OR OFFICE FAIRWEATHER
 (3) FIELD No. C-1 (6) DATE REQUIRED ASAP
 (7) VISUAL (8) ELECTRONIC (FILL OUT FORM #3)
 (10) XKN (SP 5) DISTANCE FROM CMER TO EAST EDGE (NYX = 1) 8 950
 OR WEST EDGE (NYX = 0). 4569.0 METERS
 (11) YKN (SP 241) DISTANCE FROM EQUATOR TO SOUTH EDGE
 OF SHEET. 6,370,372.8 METERS
 (12) CENTRAL MERIDIAN 135 ° 17 ' 00 "
 (13) SURVEY SCALE 1:10,000
 (14) SIZE OF SHEET (CHECK ONE) 36x54 42x60 OTHER
 (15) NYX, ORIENTATION OF SHEET (CHECK ONE)
 NYX = 1 NYX = 0



LIST G.P. OF ALL STATIONS TO BE PLOTTED ON THIS PROJECTION ON THE BACK OF THIS FORM. (DEG., MIN., SEC.)

- (16) GREATEST LATITUDE 57 ° 34 ' 30 " (PROJECTION LINE
 (17) LOWEST LATITUDE 57 ° 27 ' 30 " INTERVAL, PAGE 4
 (18) DIFFERENCE 00 ° 07 ' 00 " (HYDRO MANUAL)
 (19) 06 ' 30 "
 (20) 14 YSN
 (21) GREATEST LONGITUDE 135 ° 21 ' 30 "
 (22) LOWEST LONGITUDE 135 ° 12 ' 30 "
 (23) DIFFERENCE 00 ° 09 ' 00 "
 (24) 00 ' 30 "
 (25) 18 XSN

"C"

		ϕ	λ	
✓ MEAL	1895	57° 33' 26.2 ⁴ 8"	135° 16' 34.9 ⁵ 9"	301
✓ LODZ	1895	57° 31' 44.31 ⁸ "	135° 12' 47.82 ⁸ "	✓
✓ GIN	1895	57° 30' 40.5 ⁹ 8"	135° 17' 27.3 ⁵ 5"	3
✓ CHOP	1895	57° 32' 17.6 ⁸ 1"	135° 19' 20.8 ² 9"	4
✓ MAY	1895	57° 32' 58.0 ⁸ 9"	135° 20' 39.10 ⁴ "	5

Field No. OPER 488 C-1
 Date 2/6/70

20030

PARAMETER CARD II

Grid major axis of the earth	6,378,206.4									
Y Constant - Distance from central meridian to origin of plotter SP 5	meters									
Y Constant - Distance from equator to origin of plotter SP 241	meters									
Central Meridian of Projection	1	3	5	7	9	11	13	15	17	19
Plotter Scale/Survey Scale	1	3	5	7	9	11	13	15	17	19
North/south axis of sheet - to correspond to (Y axis - 0)	1	3	5	7	9	11	13	15	17	19
Feet/Fathom Indicator	0 - feet 1 - fathom									
H Identification No.	FOR	JN	TR	SCA	NYX	RDY	YRN	CMR	NYX	RDY

FOR - 1

PARAMETER CARD III

Lowest Lat. Intersection	5	7	2	7	3	0	0	0	0	0
Lowest Long. Intersection	1	3	5	1	2	3	0	0	0	0
Difference between Grid										
Interval (Long)										
Interval (Lat)										

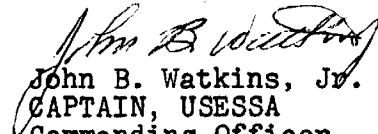
Computed _____
 Punched _____
 Checked _____
 Date _____

TRANSMITTAL SHEET

H-9126

FA-10-4-70


The field work and examination of records was accomplished under the supervision of this command. The boatsheet was inspected daily for completeness and no additional work is considered necessary.


John B. Watkins, Jr.
CAPTAIN, USESSA
Commanding Officer
Ship FAIRWEATHER

APPROVAL SHEET


The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved,


William M. Martin
Supervisory Carto. Tech.

5/12/72

Approved and Forwarded,


Walter L. Bradley, CDR, NOAA
Chief, Processing Division
Pacific Marine Center

TIDE NOTE FOR OPR-488, PERIL STRAIT, ALASKA, 1970

Three tide gages were installed and operated during the survey. These were at Chatham, Nisemi Point, and on the north shore of Peril Strait near False Lindenberg Head. Hourly heights were scaled and data-logged by ship's personnel and forwarded to PMC for processing. Marigrams were forwarded to Chief, Tides Section (C3312), Rockville for determination of the datum, time and height relationships, and the recommended zoning. This information is to be furnished the PMC Processing Division by Chief, Tides Section.



U.S. DEPARTMENT OF COMMERCE
 Environmental Science Services Administration
 COAST AND GEODETIC SURVEY
 Rockville, Md. 20852

Date: August 26, 1970

Reply to
 Attn of: C331W-229-MCFOE

Subject: Tidal Data, Peril Strait, Alaska

To: Chief, Processing Division
 Pacific Marine Center

There are listed below the tidal data requested in your memorandum of July 7, 1970, File No. CFS3.

<u>Location</u>	<u>MLLW on Marigram</u>	<u>Mn. Range</u>	<u>H.W. Interval</u>	<u>L.W. Interval</u>
Chatham, Sitkoh Bay	6.5 Ft.	12.0 Ft.	9.72	3.52
Lindenberg Head, Peril Strait	6.0 Ft.	12.3 Ft.	9.75	4.01
Nismeni Point, Peril Strait	5.6 Ft.	12.5 Ft.	9.70	3.54

Listed below are the areas to be controlled by each tide gage.

Sitkoh Bay, use the Chatham tide gage.
 Peril Strait, between Pt. Thatcher or Pt. Craven and
 Appleton Cove, use the Lindenberg Head tide gage.
 Peril Strait, between Appleton Cove and Nismeni Point,
 use Nismeni Point tide gage.

L. C. Wharton

L. C. Wharton
 Tides & Currents Branch
 Oceanography Division

H-9123 = Chatham Gage

H-9121
 H-9124
 H-9127
 H-9128 } = Peril Strait Gage (Lindenberg Head)

H-9122 } 105?
 H-9125 } = Nismeni Point Gage
 H-9126 }

Peril Strait Gage inoperative
 on April 30, May 6, 7 & 8
 Use Nismeni Point Gage.

DAY 120V

~~125~~
 127 } no hydro these
 128 } days

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~XXXXXXXXXXXXXXXXXXXX~~ Pacific Marine Center

Plane of reference approved ~~XX~~
~~XXXXXXXXXXXXXXXXXXXX~~ for Tide Tape Printout

HYDROGRAPHIC SHEET 9122; 9125; 9126 ^{OK} OK

Locality: Peril Strait, Alaska

~~XXXXXXXXXXXX~~ Year: 1970

Plane of reference is Mean lower low water

Tide Station Used (Form C&GS-681): Nesmeni Cove, Alaska

Height of Mean High Water above Plane of Reference is as follows: 14.0 feet ✓

Tide reducers have been revised in red and verified as follows:

<u>DAY</u>	<u>TIMES</u>	<u>DAY</u>	<u>TIMES</u>
117	1338-2317	121	0012-0949
118	0006-2335	"	1146-1609
119	0016	"	1753-2050
"	0222	124	0154
"	0341-0716	"	1041-1050
Remarks	0932-2350	126	0612-0619
120	0009-0230	128	0134-0227
"	0500-0833	144	0122-0209
	1041-1517		
	1725-2131		
	2350		

Robert A. Cummings
Chief, Tides ~~and~~ Branch

GEOGRAPHIC NAMES

Survey No. H-9126

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
Andersen Island											1
Appleton Cove											2
Baranof Island											3
Duffield Peninsula											4
Peril Strait											5
Point Elizabeth											6
Prince Island											7
Rodman Bay											8
Rodman Rk.											9
											10
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PREPARED BY

Frank W. Slichter
CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. Joseph Wright
CHIEF GEOGRAPHER

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9126

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & PNO-		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS		3	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES			1			
CAHIERS	1					
VOLUMES	7					
HYDROG. BOXES RAW BOXES			1			
T-SHEET PRINTS (List)						
SPECIAL REPORTS (List)						

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED		1,013	42	
POSITIONS REVISED		39	0	
DEPTH SOUNDINGS REVISED		35	11	
DEPTH SOUNDINGS ERRONEOUSLY SPACED		—	9	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		—	2	
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		32	8	
JUNCTIONS		1	10	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		158	12	
SPECIAL ADJUSTMENTS		3		
ALL OTHER WORK		67	32	
TOTALS		261	62	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY <i>Nicholas Lestenkof</i>	BEGINNING DATE 2/29/71		ENDING DATE 5/12/72	
REVIEW BY <i>Karin Malyske</i>	BEGINNING DATE 3/19/75		ENDING DATE 4/29/75	

cc Insp. D.J. Rosenberg 2-21-76 3562

Parad RHC 4/4/76
AISCMM-DC 36271-P65

Reg. No. _____

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS:

Reg. No. _____

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE _____ TIME REQ'D. _____ INITIALS _____

REMARKS:

H-9126

Information for Future Presurvey Reviews

Several shoals may warrant extra development on future surveys of this area. Some of these have been listed in the survey review.

<u>Position</u>	<u>Index</u>	<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle (Years)</u>
572	1352	2	1	50
573	1352	0	1	50

B. The usual depth curves are adequately delineated. The low water line was not delineated in many areas because of the steeply sloping bottom near shore.

C. The development of the bottom configuration and the investigation of least depths are considered adequate except on several shoals which were not adequately developed for least depths. For example:

- (1) The 3.3 in lat. 57°30.8', long. 135°17.1'
- (2) The 3.5 in lat. 57°30.17', long. 135°17.2'
- (3) The 2.4 in lat. 57°29.19', long. 135°17.2'
- (4) The 3.7 in lat. 57°29.59', long. 135°16.23'
- (5) The 4.9 in lat. 57°29.29', long. 135°17.09'
- (6) The 4.9 in lat. 57°29.76', long. 135°16.6'
- (7) The 3.9 in lat. 57°29.78', long. 135°14.3'

4. Condition of the Survey

The plotting, sounding records, and various printouts are adequate and conform to the requirements of the Hydrographic Manual and the Instruction Manual - Automated Hydrographic surveys except as follows:

A. The low water line was not delineated in many areas because of the steeply sloping bottom near shore.

B. A dirty stylus arm needle obliterated portions of the fathometer trace on several days.

C. Least depths on many shoals were determined by fathometer only on 100-meter line spacing. No attempt was made to determine least depths by drift soundings, divers, or handlead.

5. Junctions

Adequate junctions were effected with H-9125 (1970) on the west and with H-9122 on the east.

6. Comparison with Prior Surveys

H-2238 (1895) 1:40,000

This survey covers the area of the present survey. A comparison between the prior and present surveys reveals little change in the shoreline and bottom. Present survey depths differ from prior depths by plus or minus 3 to 7 fathoms. These differences can be attributed to soundings acquired by handlead and the small scale on the prior survey versus the greater development and soundings recorded by modern fathometer on the present survey.

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

7. Comparison with Chart 8283 (latest print date, Sep. 1, 1973)

A. Hydrography

The charted hydrography originates with the previously discussed prior survey which requires no further consideration, supplemented by the partial application of depths from the boat sheet and verified smooth sheet of the present survey.

Attention is directed to the following:

(1) The 1-fathom sounding charted in latitude $57^{\circ}29.66'$, longitude $135^{\circ}14.42'$ originates with H-2238 (1895). However, the sketch that included this 1-fathom sounding and covered the shoal in this area is missing from the prior survey. The 1-fathom sounding should remain charted inasmuch as a 1.6-fathom depth was found on the present survey approximately 100 meters to the south.

(2) The following three soundings, considered dangers to navigation, were applied to the chart from preliminary survey information submitted as Chart Letter 808 of 1970 and H.O. Notice to Mariners No. 30 of 1970. These soundings should be revised to concur with the present survey.

	<u>Sounding (fms)</u>	<u>Latitude</u>	<u>Longitude</u>
a.	4	$57^{\circ}29.3'$	$135^{\circ}17.1'$ NL
b.	2	$57^{\circ}29.1'$	$135^{\circ}16.9'$ NL
c.	3	$57^{\circ}29.6'$	$135^{\circ}16.3'$ <i>found position</i>

Information on presurvey review items can be found in paragraph J of the Descriptive Report.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

The aid presently charted adequately marks the feature intended.

8. Compliance with Instructions

This survey adequately complies with the Project Instructions.

9. Additional Field Work

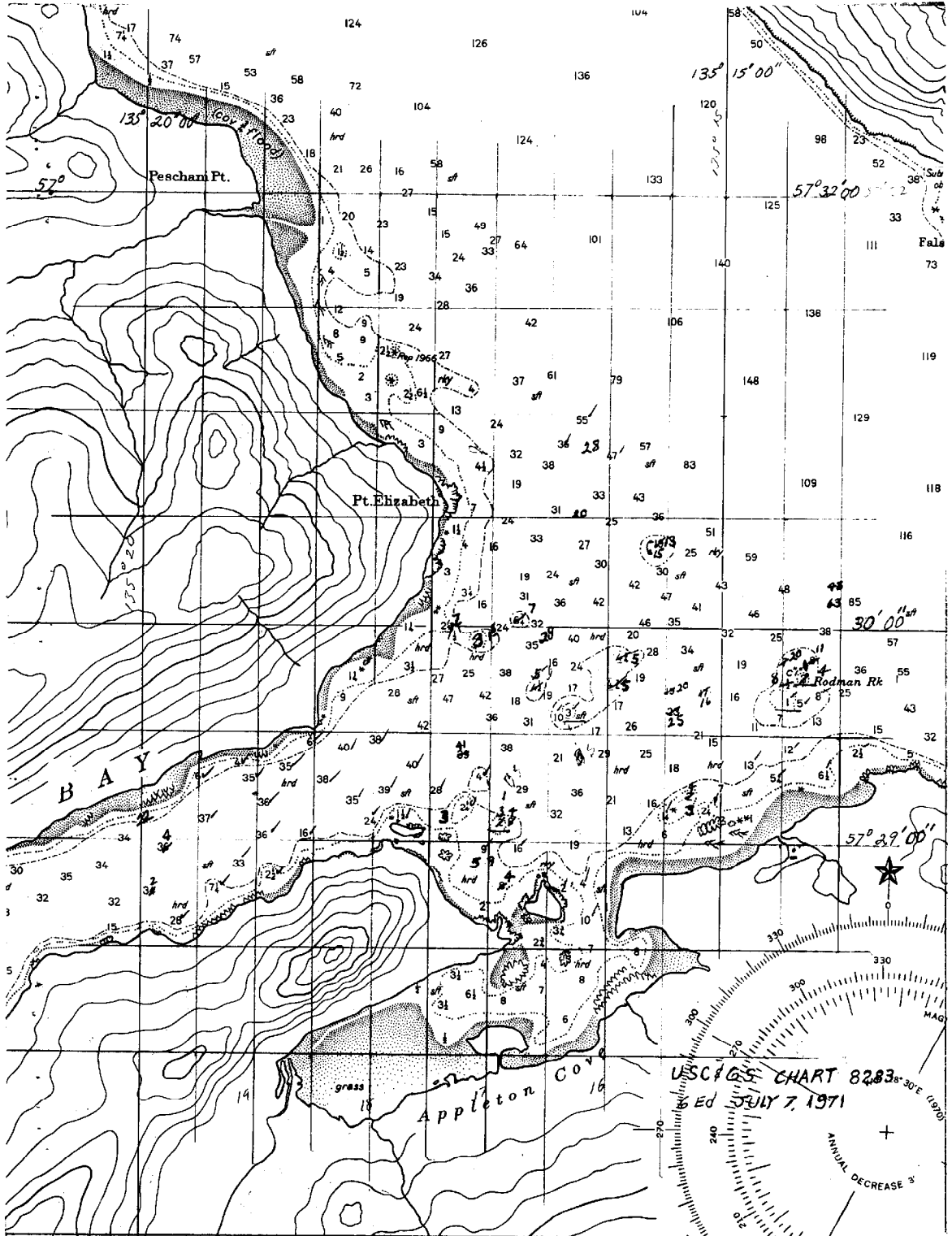
This is a good basic survey. Additional development and least depth determination on the following shoals would be desirable.

<u>Sounding</u> (Fathoms)	<u>Latitude</u>	<u>Longitude</u>
3.3	57°30.8'	135°17.1'
3.5	57°30.17'	135°17.2'
2.4	57°29.19'	135°17.2'
3.7	57°29.59'	135°16.23'
4.9	57°29.29'	135°17.09'
4.9	57°29.76'	135°16.6'
3.9	57°29.78'	135°14.3'

Examined and Approved:

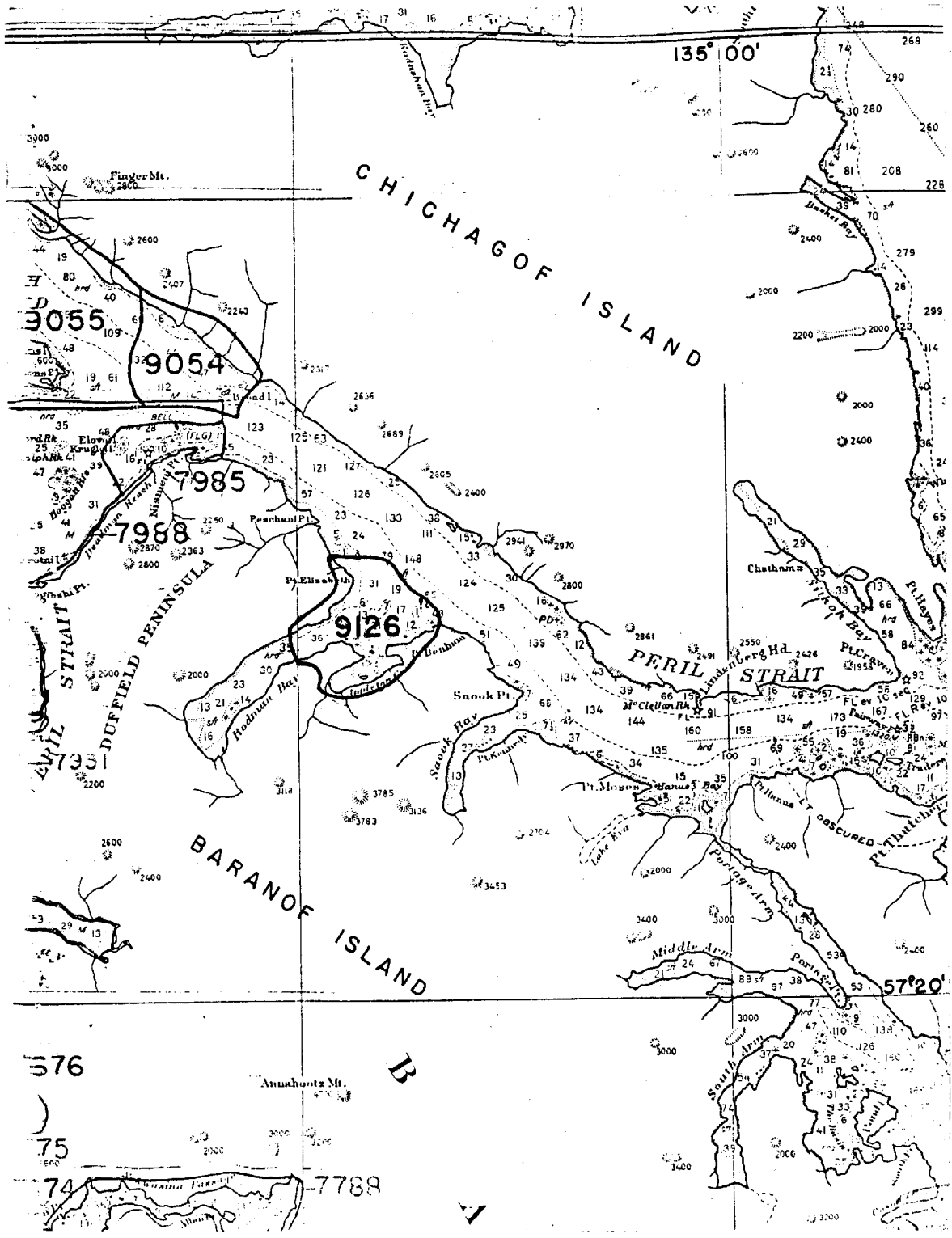
A. J. Patrick
Chief
Marine Surveys Division

Robert C. Munson
Associate Director
Office of Marine Survey
and Maps



USCGS CHART 8283
Ed JULY 7, 1971





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