# 9214

Diag. Cht. No. 8201-3

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE Environmental science services administration coast and geodetic survey

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC  Field No. DA-10-2-71 Office No. H-9214
LOCALITY
State Alaska
General locality Keks Strait
Locality Vicinity of Conclusion Island
19.71
CHIEF OF PARTY
CDR. Ray E. Moses
LIBRARY & ARCHIVES
DATE 10-17-73

USCOMM-DC 87022-P66

9214

FORM	C&GS-537
18.441	

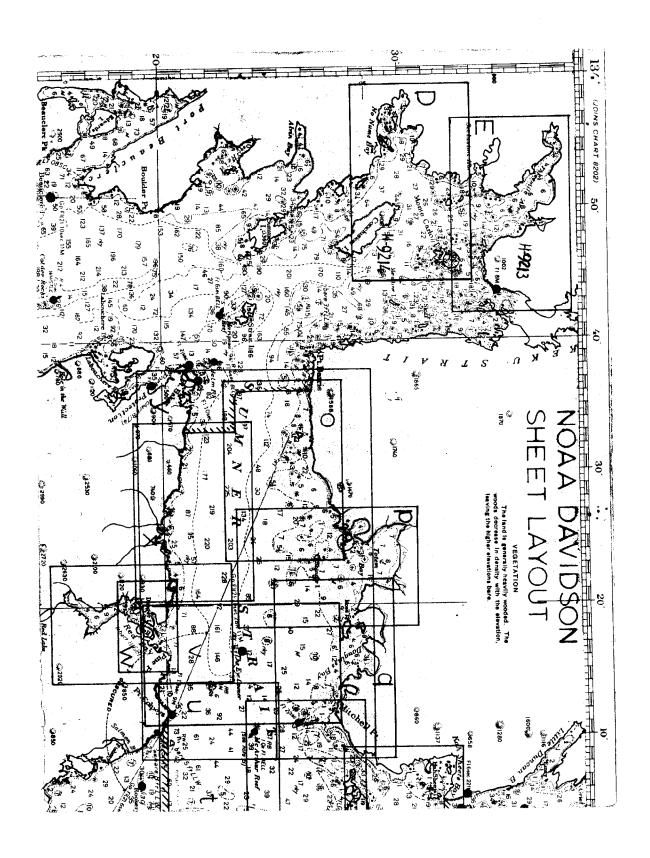
## U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY

REG	ISTE	R NO.

#### HYDROGRAPHIC TITLE SHEET

H-9214

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form.	FIELD NO.
filled in as completely as possible, when the sheet is forwarded to the Office.	DA-1Ø-2-71
State Alaska Keku Stroit	
General locality Southeast Alaska Vicinity of Conclusion Island	
Locality Keku Strait, North and Fast of Conclusion Island	
Scale 1:10,000 Date of sur	// vey 6 April - 7 May 1971
Instructions dated 2 February 1971 Project No.	. OPR-1418
Vessel DA-1 (Launch 1), DA-2 (Launch 2), NOAA Ship DAV	IDSON, 12' and 17' Skiffs
Chief of party CDR. Ray E. Moses	
Surveyed by CST A. Luceno, Lt. (j.g.) W.K. Taguchi, Lt.	(j.g.) G.L. Miller
Soundings taken by echo sounder, hand lead, pole Raytheon DE-723	, Nos. 142, 553, 919, 1276 & 1281
Graphic record scaled by Ships's Personnel	
Graphic record checked by Ship's Comissioned Officers	
Positions verified by  Protected by James L. Stringham Automa	Gerber Digital
verified	ted plot by The The Transfer of the Transfer o
Soundings in fathoms <b>RGEX</b> at <b>XELEX</b> MLLW	
REMARKS:	
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upplied to stell 11/7/7	<u>\$</u> .
	ent.
	8201 8272



#### DESCRIPTIVE REPORT

#### DA-10-2-71

#### A. PROJECT

This survey was accomplished according to Project Instructions: OPR-448-DA-71, Keku Strait and Sumner Strait, Southeast Alaska, dated 2 February 1971.

#### B. AREA SURVEYED

The survey covered the area of Keku Strait north and west of Conclusion Island, between latitudes 56° 28.75'N and 56° 32.75'N and longitudes 133° 46.0'W and 133° 58.2'W. Field work commenced on 6 April and was completed on 7' May 1971.

#### C. SOUNDING VESSELS

The following vessels were used to obtain soundings on this survey:

VESSEL	POSITION NUMBER COLOR
Launch 1 Launch 2 17' Skiff NOAA Ship DAVIDSON	Blue ( Red Violet ( Brown (

Field edit positions and detached positions are shown in brown: A summary of each vessel's work by position number is attached.

#### D. SOUNDING EQUIPMENT

Raytheon DE-723 fathometers were used:

Launch 1	#553, 142 #919
Launch 2	#919 #1276
17' Skiff	#1270
NOAA Ship DAVIDSON	#± <b>∠</b> 04

Echo sounder corrections were determined form bar checks taken daily by the launches and skiff and from a Nansen cast taken by the NOAA Ship DAVIDSON.

Corrections to echo soundings can be found in a separate report titled, "Corrections To Echo Sounders OPR-448-1971." All soundings are in fathoms. Time meridian 105° W was used throughout the survey. TC/TI tape print-outs are attached.

#### E. SMOOTH SHEET

The smooth sheet will be constructed and plotted by the Processing Division, Pacific Marine Center, Seattle, Washington.

#### F. CONTROL

Visual three-point fixes were used for control in this survey. Three types of visual signals were used: Triangulation, photogrammetric and hydrographic. The triangulation signals were machine plotted at the Pacific Marine Center and checked by LT.jg. G.L. Miller. Photogrammetric signals were located by radial plots from the office photographs. Hydrographic signals were located from a three point fix with a check angle obtained by a sextant. The geographic position was computed on the Ship's Wang Calculator and plotted by the Ship's Commissioned officers. A list of signals are included in the appendix.

Electronic control, SEA-FIX, was attempted. Red and green arcs were constructed after intersection points were calculated. The red station operated properly but the green station failed to function. Visual fixes were used for positioning throughout the sheet. On part of the sheet the launch ran on the red arcs which provided an electronic range.

#### G. SHORELINE

Shoreline and shoal areas were traced onto the boatsheet by the Ship's commissioned officers from the following incomplete manuscripts: T-12217,T-12218,T-12219,T-12221,T-12222,T-12223.

Verification was carried out by the Ship's commissioned officers and Mr. Lowell O. Neterer, Photogrammetry Division, AMC. Field edit was completed and revisions to the manuscripts were suggested, see "Field Edit Reports, OPR-448 1971."

#### H. CROSSLINES

The percentage of crosslines to lines is 5.0% or 26.2 NM compared to 521.2 NM. Soundings agree at these crossings.

#### I. JUNCTIONS

Junctions were made with contemporary surveys PA-10-3-65, DA-10-6-70 and DA-10-1-71. Soundings agree at these junctions. (H-9/60) (H-92/3)

#### J. COMPARISON WITH PRIOR SURVEYS

Comparison with surveys H-2150, H-4763, H-4763a and Chart 8272. The following is a summary of the results of the investigation:

inv	estigatio	n:	Prior	Present	
	Lat.	Long.	Survey	Survey	Remarks
	56°	133°	Fathoms	Fathoms	
ı.	30.08ř	51.00	Rock	7	Pos. 440-443 / 4743
2.	29.90 <b>′</b>	54.26	9.2	3.3	Shoal Area -
3.	30.36	55.231	8.2	8.3	-
4.	30.481	53.961	7.2	23 /	Searched For, Not Found
5.	31.57'	51.00'	0	0.30	30m dia. rock
6.	31.921	51.70'	6.8	4.0 2	Shoaler Depth
7.	32.201	50.891	10	8.Ø	Shoaler Depth
8.	32.451	51.38	9.8	7.8	Shoaler Depth
9.	32.751	49.751	5.8 -		See DA-10-1-71
10.	31.471	48.781	2.2	1.8	Shoaler Depth 🗸
11.	30.491	48.861	9.5	10. <b>K</b> -	
12.	30.16	49.71'	12 -	11 7	
13.	29.941	49.23	9 -	8.X-	
14.	28.831	46.881	12	12-1	Shoal 220m East
15.	31.16'	46.581	2.2	2.00	
16.	31.78'	47.621	0.8	0.9~	
17.	32.16'	47.191	4.3	4.8	
18.	32.26'	47.061	2.8	10 ~	Searched For, Not Found X
19.	31.05	46.321	0.5	0.1/2	
20.	31.31'	46.371	2.3*	2.37	
21.	31.16,	46.081	0.8	1.47	
22.	32.501	46.071	4-		See DA-10-6-70v

In all the above cases, the areas were adequately developed with the shoalest depth being shown. The present survey depths are reduced using the predicted tides for Monte Carlo Island, Alaska.

Listed below are developments of areas with shoal depths to delinate its extent and its least depth.

a. b.	56° 30.0' 29.9' 30.6'	133° 46.3'" 47.8'"	Least So	unding	17 - V
	29.91*	-		unding	17 - V
b.		47.81			-1 2
	30.61		. 11	11	10.2
c.		48.31	17	11	13 -
d.	31.25	49.01	11	TT .	4.3° V
е.	31.7'	48.51	11	11	4.30
f.	32.014	48.61	11	π	2.3-/
g.	38.51	48.41	tt -	п	2.8
h.	30.91"	49.61	11	11	8.6
i.	31.31"	50.91	n	tt .	9.5
j.	31.71	50.91	· 11	11	4.8-
k.	29.41	52.41	n ,	IT	12
1.	30.01	52.51"	11	11	12 -
m.	30.41	52.91	TF -	II	8.6-
n.	30.71," .	52.81	11	π	14-
0.	30.71	52.41-	11	ii .	13- ~
p.	30.21	53.01	11	11	14-6
q.	30.31	53.41	11	11	12
r.	30.31	53.91	11	11	13 -
s.	29.81	54.71	11	11	3.2
t.	30.01	54.61	11	11	3.4
u.	30.01	58.21	11	11	5.3.

All developments are on the boatsheet. All soundings have been reduced using predicted tides for Monte Carlo Island, Alaska.

#### K. COMPARISION OF SOUNDINGS WITH THE CHART

A comparison of soundings and depth curves was made with C&GS Chart #8201, 16th edition, 7 November 1970 and there is agreement. The present survey shows better delination of shoal areas.

#### L. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supercede prior surveys.

#### M. AIDS TO NAVIGATION

There are no aids to navigation on this survey.

#### N. STATISTICS

Vessel	Number of Positions	Nautical Miles Sounding Lines	B.S.	D.P.
Launch 1 Launch 2 17' Skiff	3423 <b>°</b> 636 <b>°</b> 382 <b>°</b>	421.9 ° 62.6 ° 36.7	12,	23° 2′ 17′
12' Skiff Ship DAVIDSON			44 -	Ι/

The total area surveyed is 22.1 square statute miles. There are twenty five (25) volumes with this survey. Some are the tide station used for this sheet is the Monte Carlo Island Tide Gage on time meridian 105° W. The soundings on

the boatsheet were reduced using predicted tides for Monte Carlo Island, Keku Strait, Alaska.

#### O. LOGGING

In Launch 1 a Hydrographic Data Logger Model DL-101 by Milcon Engineering Corporation and in Launch 2 a Hydrographic Data Logger DL-10 by Climatronics Corporation with Friden Flexowriters were used to record the data on this survey. A single indicator format is used. An example and explaination of this format is included in the appendix.

#### GEOGRAPHIC NAME LIST

Refer to "Geographic Names Report, OPR-448, 1971."

#### TIDE NOTE

The tide station used for this survey was the Monte Carlo Island, Keku Strait, Alaska, a portable bubbler gauge.

Location

Lat. 56° 32125" N Long. 133° 45!90" W

Plane of Reference

MLLW

Time Meridian

105° W

Type of Gauge

Portable Bubbler

The tide data were corrected for differences in time and height. The reference tide gauge for this sheet was the Standard Tide Gauge at Sitka, Alaska.

Hourly height tapes, printouts, copies of Form 362 and a field tide note were forwarded to PMC.

Tide station reports, leveling records, marigrams and Form 362 were transmitted to Chief, Tides Branch with cover letter requesting the following to be furnished to PMC:

- 1. Verified copies of Form 362's with values entered in original record gaps.
- 2. Datum: Value of MLLW on the marigrams.
- 3. Form 712's for insertion in Descriptive Report
- 4. Time and height relationships between gages operated in the area surveyed.
- 5. Recommended zoning for tide correctors.

#### P. RECOMMENDATIONS FOR THIS BOATSHEET

It is recommended that this survey supersede prior surveys.

#### Q. REFERENCE TO REPORT

Correction To Echo Sounders - OPR-448-1971
Field Edit Report - OPR-448-1971
Tide Gage Report - OPR-448-1971

Respectfully submitted,

Gregory L. Miller LTJG NOAA

#### Attachments:

Geographic Name List
Tide Notes
Fathometer Initial Correction
Boatsheet Layout
Form No. 1 - Parameters For Digital Computing - Visual
Form No. 3 - Parameters For Digital Computing - Electronic
Position Sounding Tape
Abstract of Positions
List of Signals on DA-10-2-71

014-57/

## TABLES OF CORRECTIONS TO ECHO SOUNDERS OPR 448 1971

TABLE 1 Velocity Correction for Temperature and Salinity

De	p	t	h

0.0fm

From	То	Corrn
8.6 fm	9.9fm	0.0fm
10.0	29.0	+0.1
29.1	46.0	+0.2
46.1	62.0	+0.3
62.1	78.0	+0.4
78.1	96.0	+0.5
96.1	125.0	+0.6
125.1	177.0	+0.7
177.1	356.0	+0.8

## Survey DA 10-1-71 Corrections from Barchecks

Table 2 Fathometer #142

From	То	Corrn
0.0fm 2.1 5.7	2.0fm 50 <b>9.6</b> 300.0	+0.1fm +0.2 +0.3
Table 3	Fathometer #919	•
From	To	Corrn
0,0fm 1.5	1.4fm 300.0	+0.1fm +0.2
Table 4	Fathometer #1276	
From	То	Corrn

0.0fm

300.0fm

Survey DA  $\frac{H-9214}{10-2-71}$  Corrections from Barchecks.

Table 5 Fathometer #142

From	To	Corrn
0.0fm 1.6	1.5fm 6.0	+0.1fm +0.22
6.1	300.0	+0.3
	•	

Table 6 Fathometer #553

From	To	Corrn
0.0fm	1.0fm	+0.1fm
1.1	5.2	+0.2
5.3	300.0	+0.3

Table 7 Fathometer #1276

From	То	Corrn
0.0fm	4.9fm	+0.1fm
5.0	300.0	+0.2

Table 8 Fathometer #919

From	To	Corrn
0.0fm 5.0	4.9fm 300.0	+0.1fm +0.2
	į	

Survey DA 05-1-71

Table 9 Fathometer #919

From	То	Corrn
0.0fm	2.8fm	+0.0fm
2.9	6.4	+0.1
6.5	7.8	+0.2
7.9	300.0	+0.3

Table 10 Fathometer #1276

From	To	Corrn
0.0fm	300.0fm	+0.0fm

#### SINGLE INDICATOR

### POSITION-SOUNDING TAPE

Time	Ind	Sndg	Pos No.	Day	LA	RA	LO	<u>co</u>	RO
080030	3	0018	1313	101	078560	056780	0201	203	204
080045	3	0024							
080100	3	0048							
080115	3	0059						•	
080130	3	0208	1314	101	098540	059300	0202	203	204
Time	Hou	r, min.,	sec.	•					
Ind	Ind	icator:	O=Ft.	& whol	e units				
			l=Ft.	& unit	s & tenth	ıs			
			2=FM.	& whol	e units				
			3=FM.	& unit	s & tenth	ıS			
			4=Mete	ers & w	hole unit	s			

5=Meters & units & tenths

Sndg Depth in feet, fathoms or meters

Pos No. Position number

Day Julian day number

LA Left angle

RA Right angle

Lo Left object

CO Center object

RO Right object

#### ABSTRACT OF POSITIONS

DAY	POSITION NO.	VOLUME	VESSEL	FATHOMETER N	O. REMARKS
098	0-35	1	Launch 1	553	
099	36-138	2	Launch 1	553 1	
099	139-154	3	Launch 1	553 *	
100	155-426	4	Launch 1	553	
101	427-640	5	Launch 1	553	
103	641-842	6	Launch 1	553	· ·
103	7001-7007 ′	3	Launch 1	553	D.P.
105	843-1014	7	Launch l	553	
105	7008-7010	3	Launch 1	553	D.P.
111	1115-1211	8	Launch 1	142	
112	1212-1425	9	Launch 1	142	
113	1426-1597	10	Launch l	142	
116	5001-5328′	11	Launch 2	919 -	
116	7011-7027	3	12' Skiff	None	Field Edit
117	1598-1875	12	Launch 1	142-	
118	1876-2183′	13	Launch l	553	
118	7028	3	Launch 1	553	D.P.
119	2184-2411	14	Launch 1	55 <b>3′</b>	
120	2412-2622	15	Launch 1	553	
120	5329-54661	16	Launch 2	919 ′	
123	2623-2832	17	Launch 1	553	
123	7029	3	Launch 1	553	D.P.
123	8001-8019	23	Ship DAVIDSON	1284 Bo	ottom Samples
124	2833-3111	18	Launch 1	553°	

#### ABSTRACT OF POSITIONS CON'T.

DAY	POSITION NO.	VOLUME	VESSEL	FATHOMETI	ER NO.	REMARKS .
124	9001-9161	19	17' Skiff	1276		
125	3112-3321	20	Launch 1	553 1		
125	7030-7034	3	Launch 1	553		D.P.
125	9162-93821	19 & 21	17' Skiff	1276		
127	3322-3428	3	Launch 1	553-		
127	8050-8061	22	Launch 1	553	Bottom	Samples
127	5467 <b>-</b> 5636′	24	Launch 2	919		
127	8080-8084/	23	Launch 2	919	Bottom	Samples
127	8024-8044	24	Ship DAVIDSON	1276	Bottom	Samples
131	7035 <b>-</b> 7036	<b>3</b> 5	17' Skiff	None		D.P.

## LIST OF SIGNALS ON DA-10-2-71

Signal No.	Origin of Signal	Signal No.	Origin of Signal
201	T-12223	225 /	Vol. 22, p.5
202	T-12223	226√	Vol. 22, p.6
203	SEE, 1927	230	T-12218
204	T-12222	231	T-12218
205	WAS, 1929	232	T-12218
206	THEM, 1929	233	n
207	FIN, 1929	234	T-12217
208	BOAT, 1929	235	11
209	THIS, 1929	236	11
210	NEW, 1927	237	11
211	PORT, 1927	238	tt ·
212	OFF, 1927	239	11
213	SMALL, 1927	240	<b>11</b>
214	EX, 1927	241	11
215	SECLUSION, 1929	242	11
216	T-12218	243	11
217	Vol. 22, p.5	244	11
218	Vol. 22, p.3	245	TT .
219	Vol. 22, p.7	246	11
220 /	Vol. 22, p.4	247	11
221	Vol. 22, p.5	248	11
222	T-12219	249	T-12221
223.	Vol. 22, p.6	250	T-12217
224	Vol. 22, p.4	251	T-12221

### LIST OF SIGNALS ON DA-10-2-71 CON'T

Signal No.	Orgin of Signal	Signal No.	Origin of Signal
252	T-12221	272	T-12221
253	Ħ	273	T-12222
254	11	274	11
255	11	275	11
256	<b>11</b>	276	T-12217
257	11	280	T-12218
258	11	281	11
259	11	282	n
260	11	283	11
261	11	284	11
262	<b>II</b>	285	11
263	11	286	. 11
264	11	287	11
265	11	288	11
266	11	289	17
267	11	290	11
268	tt .	291	tt .
269	11	292	T-12223
270	<b>11</b>	293	
271	TI .		



#### U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SURVEY

Rec'f. 3/19/73 and reformed with notes. Reply to Attn. of: CDM3 Reply to Attn. of: CPM3

Date : 14 March 1973

To : CAM 2122

Chief, Coastal Mapping Division

From : CPM3

Chief, Processing Division

Subject: Errors on Advanced Manuscript T-12219

On hydrographic survey H-9214 (DA-1 $\emptyset$ -2-71) we have encountered descrepancies in the shoreline as shown on T-Sheets and the boatsheet. Hydro. Yes pavipily

In particular, at Lat. 56°31.84' Long 133°46.85! and Fos. the boatsheet shows a reef baring 2 ft at 1337, 29 April '71. When tide correctors are applied, this reduces to 3 ft above MLLW. The source of the above data is from notes on the boatsheet. (See xerox copy of part of the boatsheet attached.)

047413 T-12219. The Incomplete Manuscript T-12219 shows a reef of similar configuration as that which appears on the boatsheet. The Advanced Manuscript does not show a reef at this location. Theref was erroneously removed because of gives wheletien marks by field editor. Will be added as on incomplete. There are also several rocks in the vicinity; the heights of these rocks vary one to two feet from that which the hydrographer reported.

- Hydro responsibility. The hydrographic sounding lines fit the configuration of the reef accurately. We, therefore, conclude that the Advanced Manuscript (field edit applied August 1971) is incomplete or in error. Yes, will be corrected.

The bare rocks mentioned by the hydrographer (see pos. 441, 442, and 443 attached copy) are also missing on the Advanced Manuscript.

Hydro, responsibility, we do not It is requested that the compilation of Advanced Manuscript T-12219 be Accorded re-examined and a corrected copy be furnished this office as soon as This of who, possible.

H-9214 (DA 10-2-71)

1/ DAO. Responsibility.

HYDRO. Responsibility.

We do not get this

we data.

### NOTES:

Pos. 440 - Rock 176 Bore 0852 4-11-71(5) Pos. 441 - Rock 184 Bore 0857 4-11-71, (same rock os Pos. 440) (6) rbs. 442 - Rock 12th Bore 0904 4-11-7(2) Pos. 443 - Rock 10# Bore 0908 4-11-71 40 M. Oia. (19) -Pcs. 597 - 10M. West of ledge - 4 Bore 4-11-71 (4) 1356 Pos. 609 - Rock 15 Covered 1423 4-11 76 Pos. 939 - Duplicated. Pos. 943- 20 dut, Rock 1et Bore 1846, (2) Pos. 1006 - 8 sec. ofter fix, hit bottom 1418, 4-15-71 ladge Pos. 641 - Duplicated. Rock - Lot. 56.30.23' Long. 133.55.82' Zet Covered 1500, 4-15-71 (3)

4 56° 31.84' X 133° 46.65" Reef <del>(3)</del> 25 Bore 1337, 4-29-71 Reef \$ 56.31.96' X 133.46.55 (<u>6</u>) 24 # Bore 1431, 4-29-71 \$ 54° 31.38' \ 133° 46.70' (2) 25 Bore 1029, 4-29-71 Recf \ \$ 56. 30.9' \ \ 133.46.5' **(9)** 3 Es Bare , 1026 4-29-91 \$56° 31.35' ,2 133° 53.05' 45 Bore, 0935, 5-3-71 Reef \$ 56 31.41 2 133 53.49 2ª above MHW

Rock - 100 M. N. E. of Signal 137

Awash 1404 4-15-71 (2)

Pos. 971 - Recf 10N West, 15 Bare, Rock

15 Bare 1325 4-15-71 (4)

Rock - 30 M S.W. from Signal # 539

Act Borc 1010, 4-21-71 (1)

Pos. 1202 - Reef 3M Port beam

Act Bare 1324 4-21-71 (2)

Rock - 15 M N. E. from Signal # 255

Act Bore 1336, 4-21-71 (9)

Postion 1206 to Pos. 1207,

Bootsheet controls.

No postion 1015 to 1/14 postums skippel

Pos. 1306 - 3-dout, 30 M to stoid is on

islet 25 obove HW, Ismall tree. V

Rock \$56.32.31' \lambda 133.52.27'

[52 Rshore 1333, 4-27-71 (6)

Pos 7001 Φ 56° 30.12' \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1	
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78			
133° 46.85'			
133° 46.85'	ý.		
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78	-		
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78			
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78			
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78		•	
Sce "Notes"  A '-71  133*46.85'  Rock 6=6are, 0838, 4-13-71 (7)  31, 4-29-71  133*46.70'  Rock 2= bare, 1041, 4-15-71 (2)  9, 4-29-71  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare, 1041, 4-15-71 (1)  Pos. 7009 \$56*30.73 \lambda 135*54.63'  Rock 1= bare 1228, 4-15-71 (1)  A 4-27-91  Pos. 7010 \$56*30.78' \lambda 133*54.58'  Rock 1= bare 1232, 4-15-71 (2)  Another rock 1= bare 25 Meters North.  13*53.49'  Pos. 7028 \$56*31.69' \lambda 133*54.53'  Least Depth 4.0 Enths 5-3-71, 1335  Pos. 7030 \$56*31.79' \lambda 133*47.72'  Least Depth 28 Enth 5-5-71, 1145  Pos. 7031 \$56*32.04' \lambda 139*48.61'  78			••
Sce "Nofes"  A '-71  133° 46.85'  A '-71  133° 46.85'  Rock 6° 507e, 0838, 4-13-71 (1)  31, 4-29-71  Pos. 7008 \$56° 29.78' \lambda-183° 50.23'  Rock 2° 60re, 1041, 4-15-71 (2)  Pos. 7009 \$50° 30.73 \lambda 135° 54.63'  Rock 1° 6 60re, 1228, 4-15-71 (1)  Pos. 7010 \$56° 30.78' \lambda 133° 54.58'  Rock 1° 6 60re, 1232, 4-15-71 (2)  Another rock 1° 60re, 25 Meters North.  13° 53.05'  Rock 30 M. Diol 1° 100° 100° 100° 100° 100° 100° 100°	•		
Sce "No fes"  133° 46.85' 133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.70'  133° 46.70'  133° 46.5'  140 456° 30.78' \( \) \\ \( \)			
Sce"Nofes"  A '-71  Pos. 7001 \$56°30.12' \lambda -135°56.68'  Rock 6=56are, 0838, 4-13-71 (7)  31, 4-29-71  Pos. 7008 \$56°29.78' \lambda -138°50.23'  Rock 1=6are, 1041, 4-15-71 (2)  Pos. 7009 \$56°30.73 \lambda 133°54.63'  Rock 1=60re 1228, 4-15-71 (1)  Pos. 7010 \$56°30.78' \lambda 133°54.68'  Rock 1=60re 1232, 4-15-71 (2)  Another rock 1=6are 25 Meters North.  13°53.49'  Pos. 7028 \$56°31.65' \lambda 133°51.02'  Rock 30 M. Dich 1=60re 123°51.02'  Rock 30 M. Dich 1=60re 123°51.03'  Least Depth 4.0 method 5.3.71, 1335  Pos. 7030 \$56°31.79' \lambda 133°47.72'  Least Depth 2.8 feets 5.5-71, 1145'  Pos. 7031 \$56°32.04' \lambda 139°48.61'			
Sce"Nofes"  A '-71  Pos 7001 \$56° 30.12' \lambda -135° 56.68'  133° 46.85'  Rock 6=56are, 0838, 4-13-71 (7)  31, 4-29-71  Pos 7008 \$56° 29.78' \lambda-188° 50.23'  Rock 1=60are, 1041, 4-15-71 (2)  Pos 7009 \$56° 30.73 \lambda 133° 54.63'  Rock 1=60re 1228, 4-15-71 (1)  Fos 7010 \$56° 30.78' \lambda 133° 54.68'  Rock 1=60re 1232, 4-15-71 (2)  Another rock 1=60re 25 Meters North.  13,5-3-71  Pos 7028 \$56° 31.65' \lambda 133° 51.02'  Rock 30 M. Dick 1=60re 25 Meters North.  Pos 7028 \$56° 29.96' \lambda 133° 54.53'  Least Depth 4.0 entires 5.3-71, 1335  Pos 7030 \$56° 31.79' \lambda 133° 47.72'  Least Depth 2.8 Enth 5=5-71, 1145  Pos 7031 \$56° 32.04' \lambda 139° 48.61'			
See "Notes"  133.46.85'  133.46.85'  134.4.971  135.46.85'  136.4.971  137.4.971  138.46.70'  138.46.70'  138.46.5'  148.46.5'  148.46.5'  158.46.5'  158.46.5'  158.46.5'  158.46.5'  158.46.5'  168.46.66.5'  168.46.66.5'  188.46.66.5'	*		
See "Notes"  133° 46.85'  133° 46.85'  133° 46.85'  131, 4-19-71  133° 46.70'  134° 46.70'  135° 46.5'  136° 46.5'  137° 46.5'  138° 46.5'  148° 40.70  159° 40.70  150° 40.70  150° 40.70  150° 40.70  150° 40.70  150° 40.70  160° 40.70	•	•	·
See "Notes"  133° 46.85'  133° 46.85'  133° 46.85'  131, 4-19-71  133° 46.70'  134° 46.70'  135° 46.5'  136° 46.5'  137° 46.5'  138° 46.5'  148° 40.70  159° 40.70  150° 40.70  150° 40.70  150° 40.70  150° 40.70  150° 40.70  160° 40.70			
Sce "No fes"  133° 46.85' 133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.70'  133° 46.70'  133° 46.5'  140 456° 30.78' \( \) \\ \( \)			
Sce "No fes"  133° 46.85' 133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.70'  133° 46.70'  133° 46.5'  140 456° 30.78' \( \) \\ \( \)			
Sce "No fes"  133° 46.85' 133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.85'  133° 46.70'  133° 46.70'  133° 46.5'  140 456° 30.78' \( \) \\ \( \)		D. A. 440 4 440 0-51 800 101 3 1000 508	•
Pos. 7001 \$56° 30.12' \lambda -133° 56.68'  183° 46.85'  Rock 6° 60re, 0838, 4-13-71 (7)  183° 46.70'  Rock 2° 60re, 1041, 4-15-71 (2)  Pos. 7009 \$56° 30.78' \lambda 135° 54.63'  Rock 6° 60re 1228, 4-15-71 (1)  Rock 16° 60re 1228, 4-15-71 (2)  Pos. 7010 \$56° 30.78' \lambda 133° 54.68'  Rock 16° 60re 1232, 4-15-71 (2)  Rock 16° 80re 1232, 4-15-71 (2)  Another rock 16° 60re 25 Meters North.  Pos. 7028 \$56.31.40' \lambda 133° 54.55'  Rock 30 M. Dio! 16° 60re 25 Meters North.  Pos. 7029 \$56° 29.96' \lambda 133° 54.55'  Least Depth 4.0 Easter 5.3-71, 1335  Pos. 7030 \$56° 31.79' \lambda 133° 47.72'  1east Depth 28 East 5.5° -71, 1145  Pos. 7031 \$56° 32.04' \lambda 133° 48.61'	1820 AL SE		
183.46.85'  Rock 6=6are, 0838, 4-13-71 (1)  183.46.70'  Pos. 7008 \$56.27.8' \(\lambda - 183.50.23'\)  Rock 2= 6are, 1041, 4-15-71 (2)  Pos. 7009 \$56.30.73 \(\lambda \) 135.54.63'  Rock 12=60re 1228, 4-15-71 (1)  Pos. 7010 \$56.30.78' \(\lambda \) 133.54.68'  Rock 12=60re 1232, 4-15-71 (2)  Rock 14=60re 1232, 4-15-71 (2)  Rock 15=60re 1232, 4-15-71 (2)  Another rock 15=60re 25 Motors North.  Pos. 7028 \$56.31.40' \(\lambda \) 133.54.53'  Least Ocoth 4.0 Enther 5.3-71, 133.5  Pos. 7030 \$56.31.79' \(\lambda \) 133.47.72'  Least Depth 2.8 Enthe 5.5-71, 1145  Pos. 7031 \$56.32.04' \(\lambda \) 139.48.61'  78			
31, 4-19-71  133°46.70'  19, 4-29-71  19. 7009 \$56°30.73 \lambda 133°54.63'  133°46.5'  133°46.5'  133°46.5'  133°46.5'  135°53.05'  135°53.05'  136°53.49'  136°53.49'  137°53.49'  138°53.49'  144 HUW  158°53.70' \lambda 133°47.72'		Pos. 7001 456° 30.12' \ -133° 56.68'	
Pos. 7008 \$56° 29.78' \(\lambda - 193° \) 50. 23' \\ Rock 26 bare, 1041, 4 - 15 - 71 (2)  Pos. 7009 \$56° 30.78 \(\lambda \) 133° 54. 63' \\ Rock \(\lambda \) 6 bare 1228, 4 - 15 - 71 (1)  Pos. 7010 \$56° 30.78' \(\lambda \) 133° 54. 68' \\ Rock \(\lambda \) \(\lambda \) 6 bare 1232, 4 - 15 - 71 (2)  Another rock \(\lambda \) \(\lambda \) bare 25 Meters North. (1)  Pos. 7028 \$\lambda \) 50° 31. 60' \(\lambda \) 133° 51. 02' \\ Rock \(\lambda \) 0 M. Did! \(\lambda \) Covered 4-20-7, 0908 \(\lambda \) covered 14 d MLW  Pos. 7029 \$\lambda \) 56° 31. 79' \(\lambda \) 133° 54. 55' \\ Least Depth 4.0 \(\lambda \) 133° 47. 72' \\  Least Depth 2.8 \(\lambda \) 56° 37. 04' \(\lambda \) 133° 48. 61' \\ Pos. 7031 \$\lambda \) 56° 32. 04' \(\lambda \) 133° 48. 61'		Rock Gerbare, 0838, 4-13-71 (1)	
183° 46.70'  9, 4-29-71'  Pos. 7009 \$56° 30.78 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	31,4-29-71	Pos 1008 456° 29.78' λ-193° 50.23'	
9, 4-29-71  Pos. 7009 \$56.30.78 \ 133.54.63'  Rock 12 = 6 ore 1228, 4-15-71 (1)  Pos. 7010 \$56.30.78' \ 133.54.68'  Rock 12 = 8 ore 1232, 4-15-71 (2)  Another rock 15 bere 25 Meters North. (1)  Pos. 7028 \$56.31.40' \ 1.133.51.02'  Rock 30 M. Did! 12 Covered 4-20-7.0908 * covered 1 A d MLW  Pos. 7029 \$56.29.96' \ \ 1.133.54.55'  Least Depth 4.0 = 123.54.72'  Least Depth 2.8 = 123.54.72'  Least Depth 2.8 = 123.54.61'  Pos. 7031 \$56.37.04' \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	133.46.70'	Part 15 bare 1041 4-15-71 (2)	
Rock 1/2 to ore 1228, 4-15-71 (1)  6 4-29-91  Pos. 7010 \$56. 30.78' \( \) 133. 54.68'  3. 53.05'  Rock 1/2 to 80re 1232, 4-15-71 (2)  Another rock 1/2 bore 25 Meters North. (1)  Pos. 7028 \$56. 31.40' \( \) 1.93. 51.02'  Rock 30 M. Diol. 1/2 Covered 4-28-7,0908 & covered 1 A d MLW  Pos. 7029 \$56. 29.96' \( \) 1.93. 54.53'  Least Depth 4.0 Enther 5.3.71, 133.5  Pos. 7030 \$56. 31.79' \( \) 133. 47.72'  Least Depth 2.8 Eath 5.5-71, 1145  Pos. 7031 \$56.32.04' \( \) 133. 48.61'  78		AUG 2 - 00/8, 104/1 4-10 11	
Pos. 7010 \$56° 30.78' \ 133° 54.58'  Rock1\st Bore 1232, 4-15-71 (2)  Another rock \ 5 bare 25 Meters North. (1)  Pos. 7028 \$56° 31.40' \ \ 183° 51.02'  Rock 30 M. Did! \ 2 Covered 4-28-7,0908 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Pos. 7009 456-30.73 A /33-34.63	
6 4-21-71  Pos. 7010 \$56° 30.78' \ 133° 54.58'  Rock1\(\frac{1}{2}\) \ Bore \ 1232, \ 4-15-71 \ (2)  Another rock \(\frac{1}{2}\) \ Bore 25 Meters North. (1)  Pos. 7028 \(\frac{1}{2}\) \ Covered 4-28-7,0908 \(\frac{1}{2}\) \ Rock 30 M. Did!\(\frac{1}{2}\) \ Covered 4-28-7,0908 \(\frac{1}{2}\) \ Least \(\frac{1}{2}\) \ \ Least \(\frac{1}{2}\) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Rock 12 = 6 ore 1228, 4-15-71 (4)	
3° 53.05'  Rock1 & 80re 1232, 4-15-71 (2)  Another rock 4 bore 25 Meters North. (1)  Pos. 7028 P56 31.60' \(\lambda\) 193° 51.02'  Rock 30 M. Did 12 Covered 4-28-7,0908 & covered 1 At at MLW  Pos. 7029 \$56 29.96' \(\lambda\) 193° 54.55'  Least Depth 4.0 anthom 5-3-71, 1335  Pos. 7030 \$56° \$1.79' \(\lambda\) 133° 47.72'  [2]  Least Depth 2.8 Eath 5-5-71, 1145  Pos. 7031 \$56° \$2.04' \(\lambda\) 133° 48.61'	6 4-21-91	Pos. 1010 \$56° 30.78' 1 133° 54.68	
15,5-3-71  Pos. 7028 PS6 31.60 \(\lambda\) 1.830 51.00'  Rock 30 M. Diol. 20 Covered 4-28-7,0908 & covered 1 A d MLW  Pos. 7029 \$560 29.96' \(\lambda\) 1930 54.55'  Least Depth 4.0 Enthrol 5-3-71, 1335  Pos. 7030 \$560 31.79' \(\lambda\) 1330 47.72'  1805t Depth 2.8 Enthrol 5-5-71, 1145  Pos. 7031 \$560 32.04' \(\lambda\) 1390 48.61'		Rockies Bore 1232 4-15-71 (2)	
Pos. 7028 PSC - 31.40' \(\lambda\) 1930-51.02'  Rock 30 M. Did 12 Covered 4-28-7,0908 + covered 1 At at MLW  Pos. 7029 \$56-29.96' \(\lambda\) 1930-54.55'  Least Depth 4.0 author 5-3-71, 1335  Pos. 7030 \$56-31.79' \(\lambda\) 1330-47.72'  Least Depth 2.8 falls 5-5-71, 1145  Pos. 7031 \$56-32.04' \(\lambda\) 1330-48.61'  78		Another rack 45 have 25 Meters North (1)	
Rock 30 M. Dio! Te Covered 4-28-7,0908 & covered 1 ft of MLW)  Pos. 7029 \$56-29.96' \(\lambda\) 1930-54.55'  Least Depth 4.0 Enthrow 5-3-71, 1335  Pos. 7030 \$56.31.79' \(\lambda\) 133.647.72'  Least Depth 2.8 Enthrow 5-5-71, 1145  Pos. 7031 \$56.32.04' \(\lambda\) 133.646'  78			· · · · · · · · · · · · · · · · · · ·
Pos. 7029 \$56° 29.96' \(\lambda\) 193° 54.55'  Least Depth 4.0 Enthrow 5:3-71, 1335 32  Pos. 7030 \$56° 31.79' \(\lambda\) 133° \$47.72'  Least Depth 2.8 Enthrow 5"5-71, 1145  Pos. 7031 \$56° 32.04' \(\lambda\) 133° \$48.61'	3.28.47	Post 1020 P36 37.20 X 133 31.02	در بسلم ۱۸ م
Least Depth 4.0 Extent 5-3-71, 1335 32  Pos. 1030 \$ 56° \$1.79' \(\lambda\) 133° \$7.72' 32  Least Depth 2.8 Eath 5-5-71, 1145  Pos. 7031 \$ 56° \$2.04' \(\lambda\) 139° \$48.61' 38	!	NOCK SUM. DIO: ZE LOVEYEA 1 20 1, UND 4 CHA	- 111 41 1144
Pos. 1030 \$ 56° 31.79' \(\lambda\) 133° 47.72'  2 Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 \$ 56° 32.04' \(\lambda\) 133° 48.61'   78		Pas. 7029 \$560 29.96 1 1930 54.55	
Pos. 1030 \$ 56° 31.79' \(\lambda\) 133° 47.72'  2 Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 \$ 56° 32.04' \(\lambda\) 133° 48.61'   78		Least Depth 4.0 Estate 5.3.71, 1335 32	
Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 \$ 56"32.04" \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		D	
Pos. 7031 \$ 56°32.04' \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		POS. 1030 \$ 36 31.79 \ 133 47.72	
Pos. 7031 456*32.04' 2.139* 48.61' Least Depth 3.9 Ent. 5-5-11, 1258		•	
Least Depth 3.9 Ed. 5-5-11, 12.58	-	Least Depth 2.8 Eats 5-5-71, 1145	
		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
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		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
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		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	
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l l		Least Depth 2.8 Feb 5"5-71, 1145 Pos. 7031 456"32.04" 1.139"48.61"	

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#### APPROVAL SHEET

Hydrographic Survey
DA-10-2-71
OPR-448
Southeast Alaska

The field work on this survey was accomplished under my supervision. Frequent inspections were made of the boat sheet and other records.

Ray E. Moses CDR. NOAA

Commanding Officer NOAA Ship DAVIDSON

#### 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,

Supervisory Cartographic Technician

Approved and forwarded,

Walter F. Forster, LCDR, NOAA Chief, Processing Division

Pacific Marine Center

## U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY 8/16/72

#### TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center

Hourly heights are approved for tide tape printout for smooth tape

Tide Station Used (NOAA Form 77-12): Monte Carlo Island

Period: April 8 to May 11, 1971

HYDROGRAPHIC SHEET H9213 and H9214

**OPR** 448

Locality: Keku Strait, S.E. Alaska

Plane of reference (mean lower low water) on printout is 4.7 ft. which is 4.7 feet on tide staff.

Height of Mean High Water above Plane of Reference is 11.7 ft.

Remarks: Missing hourly heights have been enclosed for April 9  $\sim$  and 10 and May 11

9-19-72

Chief, Tides Branch

OL ME OLIT MOS MOSS / C Q. Caide of Mo. Aoud West off Par J.S. Light Light tron to the state of GEOGRAPHIC NAMES Or loca moos Survey No. H-9214 E F G K Name on Survey CONCLUSION ISLAND 2 KEKU STRAIT 3 KUIU ISLAND 4 MONTE CARLO ISLAND 5 NO NAME BAY 6 7 8\_\_ 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

#### HYDROGRAPHIC SURVEY STATISTICS HYDROGRAPHIC SURVEY NO. H-921/4

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

6
6
ABSTRACTS/ SOURCE DOCUMENTS

T-SHEET PRINTS (List)

Approximation of the Control of the

SPECIAL REPORTS (List)

One copy correction to Echo sounder report OPR-448, 1971.

OFFICE PROCESSING ACTIVITIES

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

		AMOU	INTS	
PROCESSING ACTIVITY	PRE- VERIFICATION	VERIFICATION	REVI	EW TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED		14418	78	
POSITIONS REVISED		1Ø3		
DEPTH SOUNDINGS REVISED or added		33Ø	132	
DEPTH SOUNDINGS ERRONEOUSLY SPACED			5	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED			0	
		TIME (MAI	NHOURS)	
TOPOGRAPHIC DETAILS		40	60	
JUNCTIONS		16	20	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		180	75	
SPECIAL ADJUSTMENTS			45	
ALL OTHER WORK		400	133	
TOTALS		636	341	
PRE-VERIFICATION BY		BEGINNING DATE		ENDING DATE
VERIFICATION BY	·	BEGINNING DATE		ENDING DATE
James L. Stringham		3/27/72 BEGINNING DATE		9/11/73 ENDING DATE
Rosert W. Verlazorian		12 /11/74		3 /14/75
Inquition O. K. Myers	42 hrs. 4/15/75	PM U.S. G.	P.O. 19	72-769-562/439 REG.

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:			
Pro, 5217	- Change right a	ngle to 046340	
		•	
	Reg. No.		
has not been	tape containing the corrected to reflect to and review.	e data for this survey et the changes made	
When the magn final results completed:	netic tape has been s of the survey, the	updated to reflect the following shall be	
	MAGNETIC TAPE	CORRECTED	
DATE	TIME REQ'D.	INITIALS	
REMARKS:			

i

(1) PROJECT NO CHE TE	E MILLE
IN SHIP OR VIII AND	is t
(2) H No.	
(3) FIELD NO. SHEEL LOU	T FORM (3)
(7) TISUAL LAND	
(10) XKN (SP 5) DISTANCE FROM CHER TO EAST EDGE (NYK 1) OR WEST EDGE (NYX = 0).	HETERS
	Mercas
or SHEET.	000
(0.000)	[ ]
(14) Size of SHEET (CHECK SHE) 36834 42×60 0THER	<b>L</b>
(15) NYX. DRIENTATION OF SHEET (GMEER ONE)	
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	Andrew Salahar
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PLOTTED OR THIS	<u> </u>
PROJECTION ON THE TOTAL PROPERTY OF 1 OC.	
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PROJECTION ON 3 ME (21) Carolest Congitude 133 ° 59 ' CC' CO (22) Lought Long Tude 045 ' CC (22) Lought Long Tude 214 ' CC'	0 · 3c_

## FORM # 3 Fig. 7 COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

	(RANGE - RANGE)
(1)-	ROJECT NO. 448 (2) H- No. 9214 (3) FIELD NO. DA-10-2-71
(4)	YPE OF CONTROL: SHORAN, RAYDIST, X SEA-FIX, RADAR REQUENCY (FOR CONVERSION OF RAYDIST OR HI-FIX LANES TO METERS) 1619.64K
(5)	ANGE ONE (R1)  TATION NAME WITZ, 1971  LONGITUDE 133 • 47 • 28.549"
(6)	ANGE TWO (R2)  TATION NAME BRENK, 1971  LATITUDE 56 31 '08.700"  LONGITUDE 133 '041 '04.007"
(7)	ZIMUTH FROM R1 TO R2 303 27 109.96"
(8)	ASELINE LENGTH IN METERS 7,880.8 M.
.9)	ocation of survey with respect to Electronic Baseline: CHECK ONE To determine: imagine an observer standing at R1 and looking directly t R2 —— if the survey area is to the observer's <u>LEFT</u> then A is <u>egative</u> ; if the survey area is to the observer's <u>RIGHT</u> then A is <u>ositive</u> .)
•	A (MINUS) X +A (PLUS)
(10)	IF SHORAN corrections are applied by the equation, $K(X) + C = D$ , where X is SHORAN distance and D is true distance, enter the Constant Coefficients of the equations here:
	K(R1), C(R1), K(R2), C(R2)
(11)	Number of Velocity Tables to be used:  X None,One,More than one.
<b>~</b> (2)	$rac{X}{}$ This form is submitted only as an aid in preparing a boat sheet projection.
	This form applies to all data on this survey.
-	THIS FORM APPLIES TO PART OF THE DATA ON THIS SURVEY -
	TIME AND DATE LIMITATIONS: FROM TO
	Position Number Limitations: From To
	This is Form #3 Sheet # 1 of 1 Sheets for this survey.
(13)	OTHER REMARKS:

See Volume 22 of 25, for computations.

#### OFFICE OF MARINE SURVEYS AND MAPS

#### MARINE CHART DIVISION

#### HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9214	FIELD NO. DA-10-2-71
REGISTRI NO: 11-7214	111111111111111111111111111111111111111
Alaska, Keku Strait, Vicinity of Co	onclusion Island
SURVEYED: April 6 through May 11,	1971
SCALE: 1:10,000	PROJECT NO.: OPR-448
SOUNDINGS: DE-723 Depth Recorder	CONTROL: Sextant Fixes on Shore Signals
Chief of Party	A. A. Luceno F. T. Smith W. K. Taguchi H. W. Herz
Automated Plot by	R. C. Arnold Gerber Digital Plotter (PMC)
Reviewed by	

..... Date: March 13, 1975

#### 1. Description of the Area

This is a survey in the southern part of Keku Strait and covers the area from Conclusion Island to Monte Carlo Island, including No Name Bay.

Inspected by ..... G. K. Myers

The bottom in this area is very rugged with many islets, reefs, and rocky shoals offshore. Deep depths and steep gradients are found between many of these features.

Predominant bottom characteristics in the area are mud, sand, and shell. Rocky ledges and reefs extend intermittently with gravel strewn beaches alongshore.

#### 2. Shoreline and Control

The origin of control is adequately discussed in Paragraph F of the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-12217, T-12218, T-12219, T-12221, T-12222, and T-12223 of 1961-71.

Several foreshore characteristics shown as "Rocky" or "Rky" on several of the above manuscripts are described by the more appropriate "Boulders" on the smooth sheet of the present survey.

#### 3. Hydrography

- A. Depths at crossings are in good agreement considering the nature of the bottom.
- B. The usual depth curves are adequately delineated except in foul inshore areas or where ledge made passage dangerous. Several brown and dashed curves have been drawn by the reviewer to emphasize lesser depths in areas of deeper soundings.
- C. The development of the bottom configuration and the investigation of least depths are considered adequate. However, additional development for least depth and verification by handlead would have been desirable on the features listed below.

Depth	Latitude	<u>Longitude</u>
(fms.)	<del></del>	
3.4	56°31.52'	133°46.94'
1.1	56°31.32'	133°46.77'
5.8	56°31.02'	133°52.73'
4.7	56°31.71'	133°50.88'
4.6	56°31.25'	133°49.00'

#### 4. Condition of the Survey

The field work, sounding records, smooth plotting, sounding printout and descriptive report are adequate and conform to

the requirements of the Hydrographic Manual supplemented by the Instruction Manual Automated Hydrographic Surveys except for the following:

- A. No descriptive information was furnished for signals on the survey.
- B. Geographic coordinates of the reference triangulation station SEE, 1927 were shown in error on the smooth sheet.
- C. Some lines following the shoreline were not plotted in a normal path.

#### 5. Junctions

Adequate junctions were effected with H-9213 (1971) on the north, H-9160 (1970) on the east, and H-9101 (1965-70) on the south.

#### 6. Comparison with Prior Surveys

#### A. H-2150 (1892) 1:40,000

This sparsely sounded survey which covers the entire area of the present survey provides only general information. No significant differences are noted between prior and present depths. Several soundings have been carried forward to supplement present depths.

Some conflicts with prior depths are considered to be due to errors in prior handlead and wire readings or faulty position determination. The following prior soundings are discredited by the present development and should be disregarded:

<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
(fms.)		_
9.2	56°29.89'	133°54.17'
6.2	56°29.72'	133°54.28'
7.2	56°30.48'	133°53.96'

The present survey reveals the delineation of the bottom in greater detail and with the addition mentioned above is adequate to supersede the prior survey in the common area.

#### B. H-4763 (1927) 1:20,000 H-4763a (1929) 1:20,000

These earlier surveys cover only the inshore area of Conclusion Island, the waters surrounding Monte Carlo Island and several scattered shoals within the common area of the present survey. A comparison between prior and present depths reveals minor differences due to the natural shifting of sediments and differences in survey methods, leadline and wire on the prior work versus depth recorder soundings on the present.

Two rocks awash and several soundings have been brought forward to supplement the present survey. With these additions the present survey is adequate to supersede the prior surveys in the common area.

## 7. Comparison with Charts Chart 8201 (latest print date March 2, 1974) Chart 17373 (8272) (latest print date November 9, 1974)

#### A. <u>Hydrography</u>

The charted hydrography on both charts originates largely with the previously discussed surveys which require no further consideration. The remaining hydrography originates with the boat sheet soundings of the present survey (Bp. 81813).

#### B. Topography

The <u>rock awash</u> located on chart 8201 in lat. 56°30.05', long. 133°56.96' originates with the incomplete manuscript of T-12217. It was subsequently removed at the time of final review of the topographic survey. This rock should be deleted from the chart.

Several <u>rocks awash</u> on chart 8201 should be changed to islets as shown on the present survey smooth sheet.

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

#### C. Aids to Navigation

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

#### 8. Compliance with Project Instructions

This survey adequately complies with the project instructions.

#### 9. Additional Field Work

This survey is considered to be a good survey and no additional field work is recommended.

Examined and Approved:

Chief

Marine Chart Division

Associate Director

Office of Marine Surveys

and Maps

H-9214

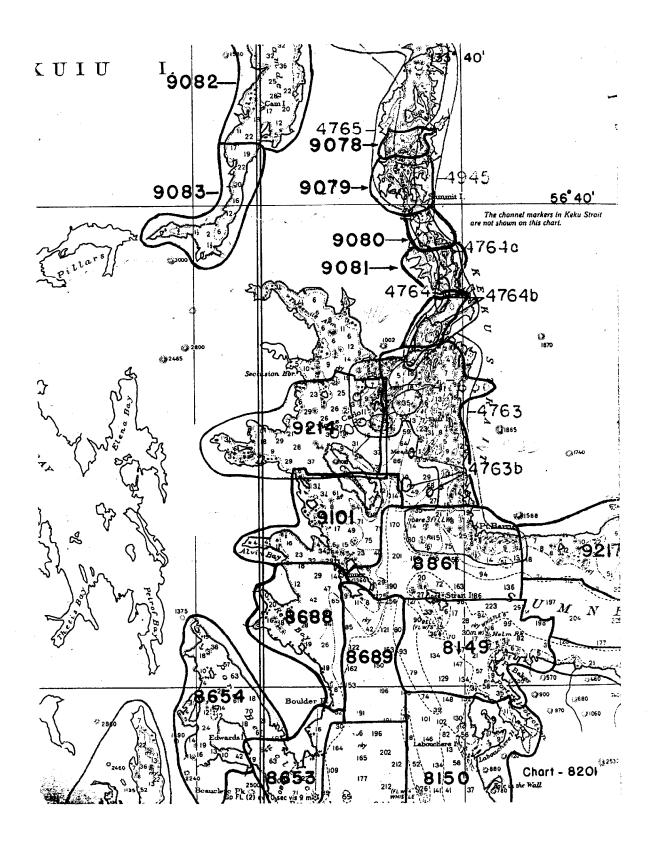
Items for Future Presurvey Review

The bottom has remained basically unchanged since the prior surveys of 1892-1929 and is considered adequately developed on the present survey, but future surveys should include determination of least depth on the following feature:

Longitude

	(fms.)			
	0.8	56°31.78'	133°	47.62'
Position	Index Long.	Bottom Change Index	Use Index	Resurvey Cycle
563	1335	2	1	50 years
563	1340	2	1	50 years
562	1335	2	1	50 years
562	1334	. 2	1	50 years

<u>Latitude</u>



#### HAUTICAL CHART DIVISION

#### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

RLQ21/				
<b>5-4/1/</b>	TT.	$\sim$	79	
	м.	.~	<i>~</i> I	1.

#### **INSTRUCTIONS**

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.

2. In "Remarks" column cross out words that do not apply.

3. Give reasons for deviations, if any,	from recommendations made under	"Comparison with Charts" in the Review

CHART	DATE	CARTOGRAPHER	REMARKS
8201	11-27-73	m.D. Kanin	Part Parte After Verification Review Lynnies Cigned Via
			Drawing No. 24
8272	6/12/72	M. D. Kanis	Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
8201	12/8/75	Raitor	Full After Verification Review Inspection Signed Via
			Drawing No. 25 Revised hydro. Considered fully apple
			Used as source for minor topo revisions, see that hist for orig. Sources
8272	8/7/78	J. Bailey	Entl Part Before After Verification Review Inspection Signed Via
	/ /		Drawing No. No corv. Exam only
		·	Descriptive Report
17372	8/14/89	Contro	Full Pare Defore After Verification Review Inspection Signed Via
		,	Drawing No. 11 8th Ed.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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