

8659

Diag. Cht. No. 8102-3.

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. LJ-10-3-62 Office No. H-8659

LOCALITY

State Alaska

General locality Prince of Wales Island

Locality Cholmondeley Sound

1962

CHIEF OF PARTY

M.E. Natto

September 20, 1967

LIBRARY & ARCHIVES

DATE Sept. 20, 1967

8659

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-8659

Field No. LJ-10-3-62

State ALASKA

General locality PRINCE OF WALES ISLAND

Locality CHOLMONDELEY SOUND

Scale 1:10,000 Date of survey 1962

Instructions dated October 2, 1962 and January 31, 1962

Vessel USC&GS Ship LESTER JONES

Chief of party M. E. NATTO, LCDR, C&GS

Surveyed by BRUCE I. WILLIAMS, LTJG, C&GS

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

Fathograms scaled by W. R. White, JET, C&GS

Fathograms checked by Ships Officers

Protracted by C. A. J. Pauw

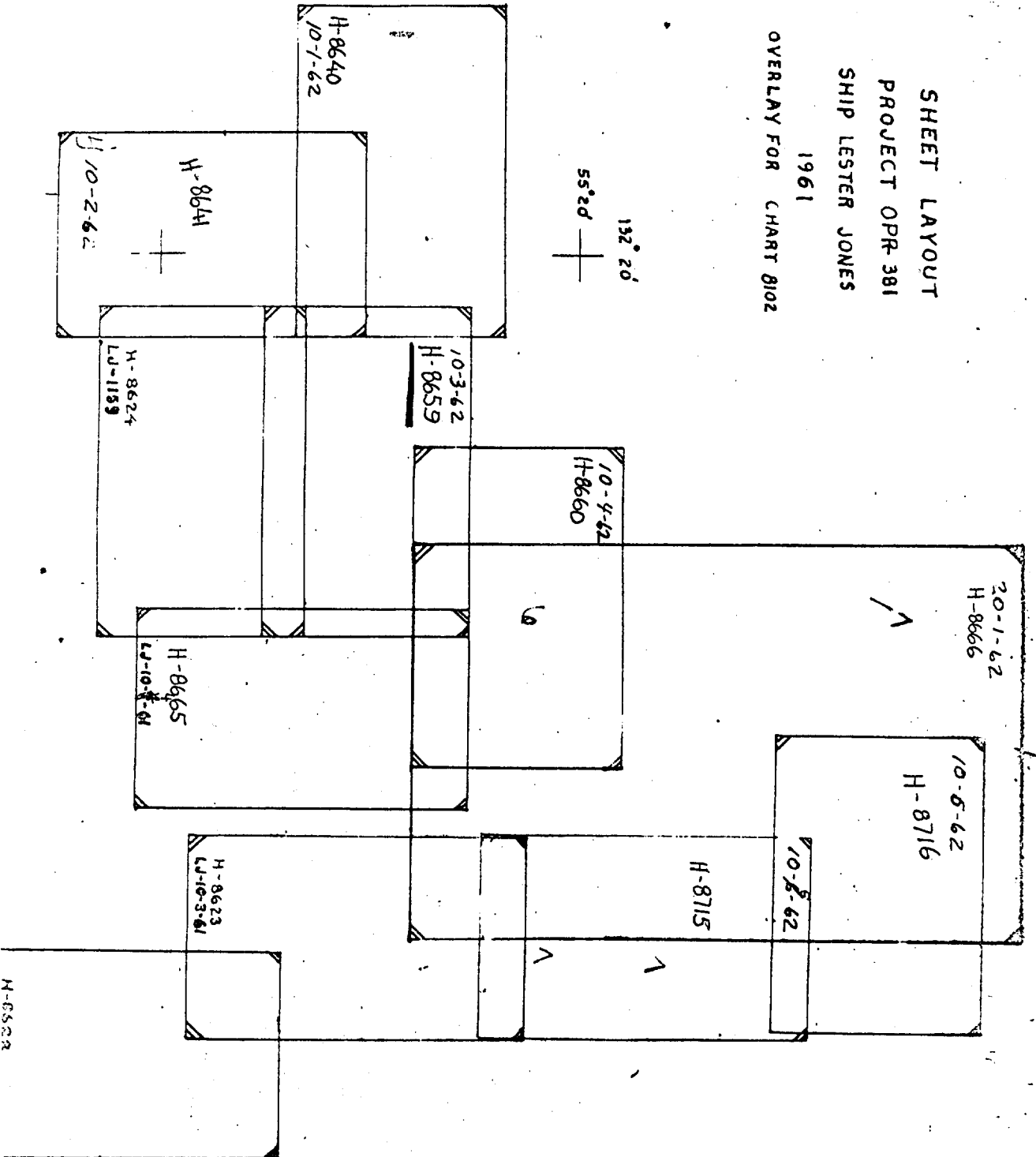
Soundings penciled by V. F. Flor

Soundings in fathoms ~~XXX~~ at ~~MLLW~~ MLLW

REMARKS:

.....
.....
.....
.....
.....

SHEET LAYOUT
 PROJECT OPR-381
 SHIP LESTER JONES
 1961
 OVERLAY FOR CHART 8102



DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8659

(LJ-10-3-62)
1962

USC&GSS LESTER JONES

M. E. NATTO, LCDR, C&GS
COMMANDING OFFICER

SCALE 1:10,000

A. PROJECT - This survey was accomplished in accordance with original instructions for Project OPR-381 dated October 2, 1962 and supplemental instructions dated January 31, 1962.

B. AREA SURVEYED - The main body of Cholmondeley Sound, S. E. Alaska, is bounded by Lat. 55 13'N and 55 17'N, Long. 132 04'W and 132 17.4W. The adjacent coastline consisted of steep mountains covered by a dense growth of timber and brush. The survey was accomplished between April 25 and September 6, 1962. Junctions were made with 5 contemporary surveys, LJ-10-1-62, LJ-10-2-62, LJ-10-4-61, LJ-10-4-62, and LJ-20-1-62, all completed this season. Junction was also made with prior survey LJ-1159 (H-8624), a 1:10,000 sheet performed by the personnel of the Ship LESTER JONES in 1959 and 1961.

C. SOUNDING VESSEL - Both the Ship LESTER JONES and Launch 88 were used as sounding vessels in this survey with the launch doing the major part of the work. Purple was used for position numbers for both units with the only distinguishing factor being the capital letters used for ship's position numbers and lower case letters for launch hydrography.

D. SOUNDING EQUIPMENT:

1) Ship hydrography.

All ship hydrography except for the last two days, M & N days, ~~were~~ ^{was} done using the model EDO-185 echo sounder, serial No. 57-209. The remaining two days, M and N days, used the model DE-723 echo sounder, No. 250, in conjunction with the EDO-185.

2) Launch hydrography.

All launch hydrography through July 22, 1962, (j day) was done with model 808 type fathometers, serial Nos. 148, 125-S "O", and 125-S "N". All the work from July 23 to the end of the survey was completed using the DE-723 fathometers, serial Nos. 250 and 251. The EDO-185 was used in depths of 50 to 270 while the 808s were used in all depths ranging down to 135 fms and the DE-723s were used in all depths ranging down to 210 fms.

Echo sounder corrections consisted of velocity corrections, phase corrections, and instrument error corrections. Velocity corrections were determined from standard temperature and salinity observations. Phase corrections for the 808 type fathometer were found by the method outlined in Sec. 5-112 of the Hydrographic Manual; for the DE-723 type of echo sounder, phase error was found by the method of comparing initial traces as outlined in the Preliminary Operation and Maintenance Manual for

DE-723 Survey Fathometer. For launch work, instrument error as well as draft was compensated for on 808 and DE-723 Echo sounders by setting the initial trace such that a 2 fathom sounding was recorded when using a 2 fathom bar check. For ship hydrography, the EDO-185 instrument error was found by comparison of EDO-185 soundings with vertical casts from the ship and simultaneous 808 echo sounder readings. On ship work the instrument error correction of DE-723 echo sounders, -0.2 fms, was applied according to the memorandum on this subject of October 1, 1962. ✓

E. SMOOTH SHEET - The smooth sheet was made by the ruling machine in the Washington Office. ✓

F. CONTROL - Hydrography was controlled horizontally by visual control. Signals were located by photogrammetric methods using both photo-hydro signals and hydro signals. Photogrammetric compilations used for the transfer of signals were T-11511, T-11512, T-11514, T-11515. ✓

G. SHORELINE - The shoreline detail was transferred from the bluelines of the incomplete manuscripts listed under the preceding section, and was not verified. Shoreline revisions were shown on smooth ozalids and sent to the Washington Office for revision of manuscripts. *Shoreline checked with advance prints of "T" sheets.* ✓

Two rocks awash shown on Manuscript No. T-11512 were proven to be non-existent. The rocks were shown at Lat. 55 15.97N, Long. 132 05.46W and Lat. 55 15.98N, Long. 132 05.56W. The area was investigated at low tide by drifting in a skiff and dragging a leadline. The two rocks should be removed from the manuscript. *Rocks not shown on smooth sheet, not on advance copy of T-11512.* ✓

In many areas the low-water line is not defined by soundings due to the steep slope of the shore, the rocky shoreline, and the irregular bottom. ✓

H. CROSSLINES - The percentage of crosslines run was 10 % with good agreement found in most areas. In areas of steep sloping bottom there was satisfactory agreement of crossline soundings. Discrepancies of crossline soundings were resolved by the checking of fathograms, plotting of positions, and checking of spacing interval of soundings. ✓

I. JUNCTIONS - Satisfactory agreement of depths was found at the junctions of all applicable contemporary surveys and prior survey H-8624 (all surveys listed under Sec. B of this report). Some trouble was encountered the S'ly boundry of LJ-10-3-62 where junction was made with prior survey H-8624 (LJ-1159). In depths ^{H-8659} over 40 fathoms almost all LJ-10-3-62 soundings were less than LJ-1159 soundings by an average of 2 - 5 ^{H-8659} fathoms. This difference was resolved using the smooth sheet soundings of LJ-1159. The corrected values of soundings included a -3.7 fathom phase correction ^{H-8624} for soundings in B scale of the 808 fathometer used. *Overlapping soundings on smooth sheets are in adequate agreement.* ✓

J. COMPARISON WITH PRIOR SURVEYS - Prior surveys applicable to this area are: ✓

- 1) Survey No. 1649b, done in 1885, at a scale of 1:80,000
- 2) Survey No. 4196, done in 1921, at a scale of 1:20,000
- 3) Survey No. 2972, done in 1908, at a scale of 1:10,000

Satisfactory agreement was achieved with all of these surveys considering the difference between the surveying techniques used in the years of the prior surveys and in the year of this survey. Some difference existed in the projection due to the difference in datums. Shoreline differences which exist may be attributed to the difference in the methods of plotting shoreline on the boatsheets.

Item #6 on Part I of the preliminary review was thoroughly investigated. A development was run in the area and the depths indicated were greater than 60 fathoms. Therefore it is recommended that the sunken rock (PD) at Lat. 55 14.2N, Long. 132 17.4W not be charted in the future. (See H-8640[1962])
No longer charted. Falls on H-8640 (1962) (Long. 132°17.2' is mid-channel at 55°14.2')

K. COMPARISON WITH THE CHART - The only chart of the area is the 6th edition of chart No. 8102, last revised and printed 12/16/61, and it is of such small scale that little comparison can be made. General agreement can be noted, however. The PD shown on chart 8102 at Lat. 55 14.2N and Long. 17.4W was disproved as discussed in section J. (See directly above.)

Important newly found dangers to navigation were found at:

<u>DANGER</u>	<u>POSITION</u>	<u>LAT.</u>	<u>LONG.</u>	<u>LEAST DEPTH</u>
Shoal	66-67 z	55 14.36	132 05.37	6.7 ⁸ fms
Shoal	78-79 w	55 14.06	132 07.50	4.8 ² fms
Shoal	87-88 r	55 13.09	132 10.72	3.8 ² fms
Shoal	174-175 p	55 13.44	132 11.86	2.4 ¹ fms
Shoal	78-79 kh	55 13.12	132 14.17 ³	3.1 ⁵ fms

L. ADEQUACY OF SURVEY - This survey was complete and is adequate to supersede all prior surveys for charting purposes.

M. AIDS TO NAVIGATION - There were no aids to navigation within the limits of the survey.

N. STATISTICS -

POSITIONS	Launch 3061
	Ship <u>500</u>
	3561

NAUTICAL MILES
OF SDG. LINE 351.6 n. miles

AREA OF SURVEY 15.0 square nautical miles

TIDE GAGES 1 portable gage at LANCASTER COVE and 1 portable gage at DIVIDE HEAD

TOPO STATIONS Recoverable topo stations OUT and marks at oHAG, oOUT, oMINK (USGS 1949), oCAB, & oNEW

BOTTOM SAMPLES 81

MAGNETIC STATIONS 1 station @ OCAB with
00T as azimuth station

O. MISCELLANEOUS:

Temperature and salinity observations were taken on the following dates:

April 24, 1962

May 31, 1962

August 6, 1962

Q. REFERENCES TO REPORTS:

Leveling record:

DIVIDE HEAD GAGE

LANCASTER COVE GAGE

Tide Marigrams

Sounding Records

Fathograms

Fathometer Correction Report

Record of observed Temperature
and Salinity observations

TIDE NOTE

One portable automatic tide gage was established at DIVIDE HEAD in Cholmondeley Sound at Lat. 55 14.54N and Long. 132 17.28W. The 4.78 foot mark on the tide staff corresponds to MLLW. The time zone used was 120 W. The other portable tide gage was established at LANCASTER COVE in Cholmondeley Sound at Lat. 55 12.87N and Long. 132 05.71W. The 5.5 foot mark on the tide staff corresponds to MLLW. The time meridian used for the gage was 120 W.

The dividing line for the tide gages is a line passing through signals DAY and BAT. The area to the East of this line used the Lancaster Cove gage while the area to the West used the DIVIDE HEAD gage. No corrections for difference in time or height were applied to the observed tides. Hourly heights were not supplied by the Washington Office.



CORRECTIONS TO ECHO SOUNDINGS

The echo correction for 10-3-62 will be a combination of the phase correction (for 808 and DE-723 type fathometers), velocity correction, and instrument correction (for DE-723s and EDO-185). Instrument error corrections were only necessary on ship work. For the EDO-185 there was a constant +0.5 fms correction while for the DE-723s a constant -0.2 fms correction was applied for work under 101 fms with no correction in deeper depths. The fathometer phase corrections for each fathometer follow on separate sheets. The following list indicates the fathometers in use for each day of hydrography. A separate report covering the details of these corrections to echo soundings more fully will be submitted for the project under the title "Fathometer Correction Report". *-see for phase corr.*

<u>LAUNCH WORK</u>			<u>SHIP WORK</u>		
DAY	FATHOMETER	DATE	DAY	FATHOMETER	DATE
a	148	4/25	A	148 & EDO	5/25
b	125-s"N"	5/23	B	EDO	5/28
c	125-s"O"	5/25	C	125-s"O"	
d	148	6/1		& EDO	6/1
e	125-s"O"	6/8	D	125-s"O"	
f	148	6/13		& EDO	6/4
g	148	6/14	E	EDO	6/8
h	148	6/21	F	EDO	6/11
j	148	6/22	G	EDO	6/14
k	251	7/17	H	EDO	6/18
l	251	7/18	J	EDO	6/21
m	251	7/20	K	EDO	6/22
n	251	7/23	L	EDO	7/18
p	251	7/25	M	250 & EDO	7/20
q	251	7/26	N	250	7/24
u	251	8/3	P	EDO	8/14
s	251	8/6	Q	EDO	8/16
t	251	8/9	R	EDO	8/16
u	251	8/13	S	EDO	8/31
v	251	8/16	T	250	9/10
w	251	8/24			
x	251	8/28			
y	251	8/29			
z	251	8/31			
aa	250	9/4			
ba	250	9/5			
ca	250	9/6			

LIST OF SIGNALS

ABE	T-11511	GAD	T-11512
ACE	T-11511	GAL	LJ-A-62
ADD	T-11514	GAS	Hydro (Vol I, p 27)
AGO	T-11515	GEO	T-11514
AHA	T-11515	GIG	T-11514
ALP	T-11515	GUS	T-11515
AMY	T-11514	HAG	T-11515
AXE	T-11514	HER	T-11514
BABE	Hydro (Vol I, p. 26) ✓	HEX	LJ-A-62
BAG	T-11511	HOE (Sub pt.)	T-11514 Vol I, p 27
BAR	Hydro (Vol. I, p. 13)	HOP	T-11515
BAT	T-11514	HUG	T-11514
BET	T-11514	ICE	T-11514
BIG	T-11512	ION	T-11514
BOB	T-11514	IVY	LJ-A-62
BOO	T-11514	JAN	T-11515
BOX	T-11515	JAW	T-11515
BUT	T-11514	JAY	T-11514
CAB	T-11514	JIM	T-11514
CAM	LJ-A-62	JOE	Hydro (Vol I, p 26) ✓
CAT	T-11514	JOY	Hydro (Vol III, p 10)
COO	T-11514	KEY	LJ-A-62
CUR	T-11514	KIM (Sub pt.)	T-11514 Vol I, p 26)
DAW	LJ-A-62	LAX	T-11514
DAY	T-11514	LOW (Sub pt.)	T-11514 Vol I, p 27)
DIF	T-11514	MAC	T-11512
DIM	T-11515	MAN	T-11514
DOG	T-11514	MARY	T-11515
DORA Sb pt	(T-11514) 1959 work	MINK	T-11514
DOT	T-11514	MOM	T-11514
EAT	Hydro (Vol I, p. 26) ✓	MOO	T-11514
EEL	LJ-A-62	NAY	LJ-A-62
EGG	T-11515	NEO	T-11514
ELF	T-11514	NEW	Hydro (Vol I, p 26) ✓
END	T-11512	NIX	T-11514
EVA	T-11514	NOW	T-11515
FAT	T-11512	OIL	T-11514
FEW	LJ-A-62	ORE	T-11511
FLY	T-11515	OUT	T-11514
FOE	Hydro (Vol I, p. 28)	PEG	T-11512
FOG	Hydro (Vol I, p. 16) ✓	PIE	T-11514
FRO	T-11514	PIT	T-11514
FRY	T-11514	PLY	T-11514
		PUT	Hydro (Vol I, p 27) ✓

LIST OF SIGNALS (CONT.)

RAG	T-11514
RIG	T-11512
ROT	T-11514
SAL	T-11512
SIR	T-11514
SKY	T-11514
SOW	T-11514
SUB	T-11514
TAN	T-11514
TIP	T-11512
TOM	Hydro (Vol I, p 13) ✓
TRY	T-11514
USE	T-11512
VEX	T-11514
WAD	T-11511
WAR	T-11515
WEE	T-11514
WHO	Hydro (Vol I, p ²⁷ 13).
WIT	T-11512
YES	T-11514
YET	T-11515
ZAG	T-11514

VELOCITY CORRECTIONS FOR 10-3-62

FROM T & S OBSERVATIONS ON AUGUST 6, 1962

PERIOD JUNE 23 THRU SEPTEMBER 6

Correction (fms)	To Depth (fms)
-0.0	3.0
+0.1	13.0
+0.2	27.6
+0.3	47.0
+0.4	69.0
+0.5	89.0
+0.6	101.0
+0.5	154.0
+1.0	66-

↑

corrected signs

6/10/69

VELOCITY CORRECTIONS FOR 10-3-62

FROM T & S OBSERVATIONS ON MAY 31, 1962

PERIOD MAY 9 THRU JUNE 22

Correction (fms)	To Depth (fms)
0.0	17.6
+0.1	48.0
+0.2	71.5
+0.3	93.0
+0.4	115.0

↑ corrected signs 6/11/64

Less than $\frac{1}{2}$ of 1%

VELOCITY CORRECTIONS FOR 10-2-62, 10-3-62

FROM T & S OBSERVATIONS ON APRIL 24, 1962

PERIOD APRIL 24 THRU MAY 8

Correction (fms)	To Depth (fms)
0.0	21.2
+0.1	50.0
+0.2	70.0

Correction less than 1/2 %; no correction applied.

Survey H-8659 and accompanying records have been examined
by me and are approved. No additional field work is recommended.

M E Natto
M. E. Natto, LCDR, C&GS
Chief of Party
Ship LESTER JONES

TIDE NOTE FOR HYDROGRAPHIC SHEET

Seattle Regional Officer:

March 31, 1964

~~National Chart Office~~

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 8659

Locality Clarence Strait, Cholmondeley Sound
Southeast Alaska

Chief of Party: M. E. ^NMatto (1962)

Plane of reference is mean lower low water, reading

4.8 ft. on tide staff at Divide Head

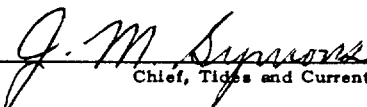
16.5 ft. below B. M. 1 (1962)

5.5 feet on tide staff at Lancaster Cove

18.7 feet below B. M. 3 (1959)

Height of mean high water above plane of reference is 14.2 feet.

Condition of records satisfactory except as noted below:



Chief, Tides and Currents Branch

ADDENDUM NOTES H-8659

SOUNDING EQUIPMENT

Soundings by the EDO fathometer were found consistently 2 fathoms too deep when compared with crosslines and with adjacent lines. No reason for the discrepancy was discovered but after subtracting the two fathoms apparent agreement was obtained. ✓

SMOOTH SHEET

The projection was machine ruled in Washington. The control and shoreline were transferred and checked by PMC personnel also the positions were plotted and soundings penciled. The sheet was also verified and inked by PMC personnel. ✓

COMPARISON WITH CHART

Comparison has been made with Chart 8102, 8th Ed., Dec. 30/65. Differences between the chart and the smooth sheet are shown in red on the chart section enclosed. (See below) ✓

Examined and Approved

William M. Martin

William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded

Harold J. Seaborg
Harold J. Seaborg, RADM USESSA
Director, Pacific Marine Center

Contents Noted and Forwarded

John B. Watkins
John B. Watkins, CDR USESSA
Chief, Processing Division, PMC

P.S.

Since writing this addendum this survey has been compared with Chart 8083 1st Ed., June 19/67. A section of the chart is attached which shows differences between smooth sheet and chart in red ink. *gaw*

Reviewet's compatison with chart 8083, Second Ed. 5-13-'68

GEOGRAPHIC NAMES PENCILED ON H-8659

BABE ISLANDS

CHOLMONDELEY SOUND

DIVIDE HEAD

DORA BAY

HUMP ISLAND

LANCASTER COVE

PRINCE OF WALES ISLAND

SOUTH ARM

SUNNY COVE

SUNNY CREEK

WEST ARM

GEOGRAPHIC NAMES

Survey No. H-8659

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Babe Islands										1
Chalmondeley Sound										2
Divide Head										3
Dora Bay										4
Hump Island										5
Lancaster Cove										6
Prince of Wales Island										7
South Arm										8
Sunny Cove										9
Sunny Creek										10
Sunny Point										11
West Arm										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names approved
Oct. 12, 1967
Frank W. Pickett

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-8659

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT
SMOOTH SHEET		1	BOAT SHEETS		1
DESCRIPTIVE REPORT		1	OVERLAYS		

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	2					
CAHIERS	1					
VOLUMES	15	15				
BOXES						

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			TOTALS
	PRE-VERIFICATION	VERIFICATION	REVIEW	
POSITIONS ON SHEET				3561
POSITIONS CHECKED		643	3	646
POSITIONS REVISED		121	0	121
DEPTH SOUNDINGS REVISED <i>or added</i>		862	0	862
DEPTH SOUNDINGS ERRONEOUSLY SPACED <i>or Corr.</i>		277	0	277
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		24	4	28
JUNCTIONS		16	22	38
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		14	5	19
SPECIAL ADJUSTMENTS	<i>Four of six junctions inked by reviewer.</i>			
ALL OTHER WORK		55493	125	618
TOTALS		605547	156	703
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY <i>Clarence R Lehman</i>	BEGINNING DATE <i>Feb. 28, 1965</i>		ENDING DATE <i>June 16th 1965</i>	
REVIEW BY <i>S. Rose</i>	BEGINNING DATE <i>March 18, 1969</i>		ENDING DATE <i>April 21, 1969</i>	

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8659

FIELD NO. LJ-10-3-62

Southeast Alaska, Prince of Wales Island, Cholmondeley Sound

SURVEYED: April 25, 1962 - September 6, 1962

SCALE: 1:10,000

PROJECT NO.: OPR-381

SOUNDINGS: EDO-185, DE-723, and 808 type
Depth Recorders

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party.....	M. E. Natto
Surveyed by.....	B. I. Williams
Protracted by.....	C. A. J. Pauw
Soundings Plotted by.....	V. F. Flor
Verified and Inked by.....	C. R. Lehman
Reviewed by.....	S. Rose
.....	Date: 04/21/69
Inspected by.....	R. H. Carstens

1. Description of the Area

This is a survey of Cholmondeley Sound from Divide Head to the entrance, exclusive of the tributaries.

The shoreline is steep and rockbound. Numerous islets, rocks awash, and abrupt peaks are found inshore within the 50-fathom curve. In the central portion of the Sound, depths range from 100 to 267 fathoms.

Comparison with previous surveys indicates that the shoreline and the bottom are stable.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

The shoreline originates with advance manuscripts T-11511, T-11512, T-11514, and T-11515 of years 1954-62.

2.

3. Hydrography

A. Depths at crossings are in good agreement.

B. Standard depth curves are adequately delineated; however, the steep gradient and foul nature of much of the shoreline prevented developing most of the low-water line.

C. The development of the bottom configuration and least depths is adequate, except on some features such as the following:

<u>Sounding(fathoms)</u>	<u>Latitude</u>	<u>Longitude</u>
2.1	55°13.44'	132°11.87'
3.5	55°13.15'	132°14.01'
3.5	55°13.12'	132°14.18'
4.2	55°14.86'	132°07.50'
6.8	55°14.37'	132°05.38'
7.6*	55°16.35'	132°05.15'

* questionable - may be a stray

4. Condition of the Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that some of the echo sounder correctors applied to the ship's work are apparently faulty. The verifier found it necessary to apply a constant minus 2-fathom correction to the reduced soundings of the ship's EDO Fathometer, in order to attain agreement with the launch work.

The field party did not verify critical depth with hand-lead or investigate least depths by drift soundings.

Several questionable strays on the fathograms were not adequately investigated or disposed of by the hydrographer.

The boat sheet was particularly legible and well annotated with supplemental information.

5. Junctions

Adequate junctions were affected with the following surveys as indicated:

3.

H-8624 (1959-61)	on the south
H-8640 (1962)	on the west
H-8641 (1962)	on the southwest
H-8660 (1962)	on the northeast
H-8665 (1961)	on the northeast
H-8666 (1962)	on the northeast

6. Comparison With Prior Surveys

H-1649b	(1885)	1:80,000
H-2972	(1908)	1:10,000
H-4196	(1921)	1:20,000

Portions of these surveys comprise the prior coverage of the area of the present survey. The 1885 survey is of reconnaissance nature; because of its few soundings and small scale, comparison with it is impracticable.

The two later surveys cover the entrance and are in general good agreement with the present survey. At lat. $55^{\circ}16.65'$, long. $132^{\circ}05.61'$ position, H-4196 (1921) has a 17-fathom sounding which was carried forward to supplement the present survey depths.

The present survey, with the addition of the sounding carried forward to it, is adequate to supersede the prior surveys in the common area.

7. Comparison With Chart No. 8083, Second Ed., May 13, 1968

A. Hydrography

The hydrography within the area of the present survey is charted from an enlarged advance print of a negative of the verified smooth sheet which was revised prior to review. The negative is smudged and unclear in several places.

Attention is directed to the following:

- ✓ 1. A 67-fathom sounding charted at lat. $55^{\circ}14.09'$, long. $132^{\circ}11.78'$ is in error. The correct depth is 87 fathoms.
- ✓ 2. A sounding of 6 fathoms 5 feet charted at lat. $55^{\circ}14.78'$, long. $132^{\circ}07.79'$ was charted in error. The correct depth is 8 fathoms 5 feet.

4.

- ✓ 3. The 21-fathom sounding charted in lat. $55^{\circ}13.21'$, long. $132^{\circ}07.28'$ originates with the enlarged print of the negative. A peak directly adjacent to the 21-fathom sounding was added to the smooth sheet. The correct depth is 19 fathoms.
- ✓ 4. The 7.6-fathom sounding at lat. $55^{\circ}16.35'$, long. $132^{\circ}05.15'$ was added to the present survey during review and should be applied to the chart.
- ✓ 5. The rock awash symbol charted at lat. $55^{\circ}13.42'$, long. $132^{\circ}10.48'$ from a fathometer sounding should be deleted. The sounding was considered to be a stray during review and was removed from the smooth sheet.
- ✓ 6. The reef charted close to shore at lat. $55^{\circ}14.41'$, long. $132^{\circ}04.59'$ should be deleted. The revised smooth sheet correctly shows the feature.
- ✓ 7. The rock awash symbol charted at lat. $55^{\circ}15.53'$, long. $132^{\circ}05.85'$ originates with the enlarged advance print of a negative of the smooth sheet. A shoal pseudo-peak charted as a rock awash was rejected during review. The reviewed smooth sheet correctly shows the feature.

With the indicated changes the charted hydrography is in substantial agreement with the present survey.

B. Aids to Navigation

There are no aids to navigation within the area of the present survey.

8. Compliance With Instructions

The present survey complies adequately with the project instructions except for development of least depths on some features as noted in item 3(c).


9. Additional Field Work

This hydrographic survey is adequate for charting; however, handlead verification and additional investigation for least depths should be obtained on the following features:

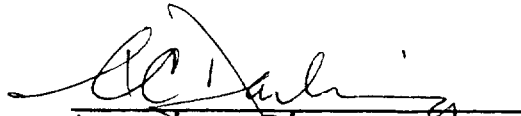
5.

<u>Sounding (fathoms)</u>	<u>Latitude</u>	<u>Longitude</u>
2.1	55°13.44'	132°11.87'
3.5	55°13.15'	132°14.01'
3.5	55°13.12'	132°14.18'
4.2	55°14.86'	132°07.50'
6.8	55°14.37'	132°05' 38'
7.6	55°16.35'	132°05.15'
9.7	55°13.04'	132°14.91'
9.8	55°12.97'	132°08.48'

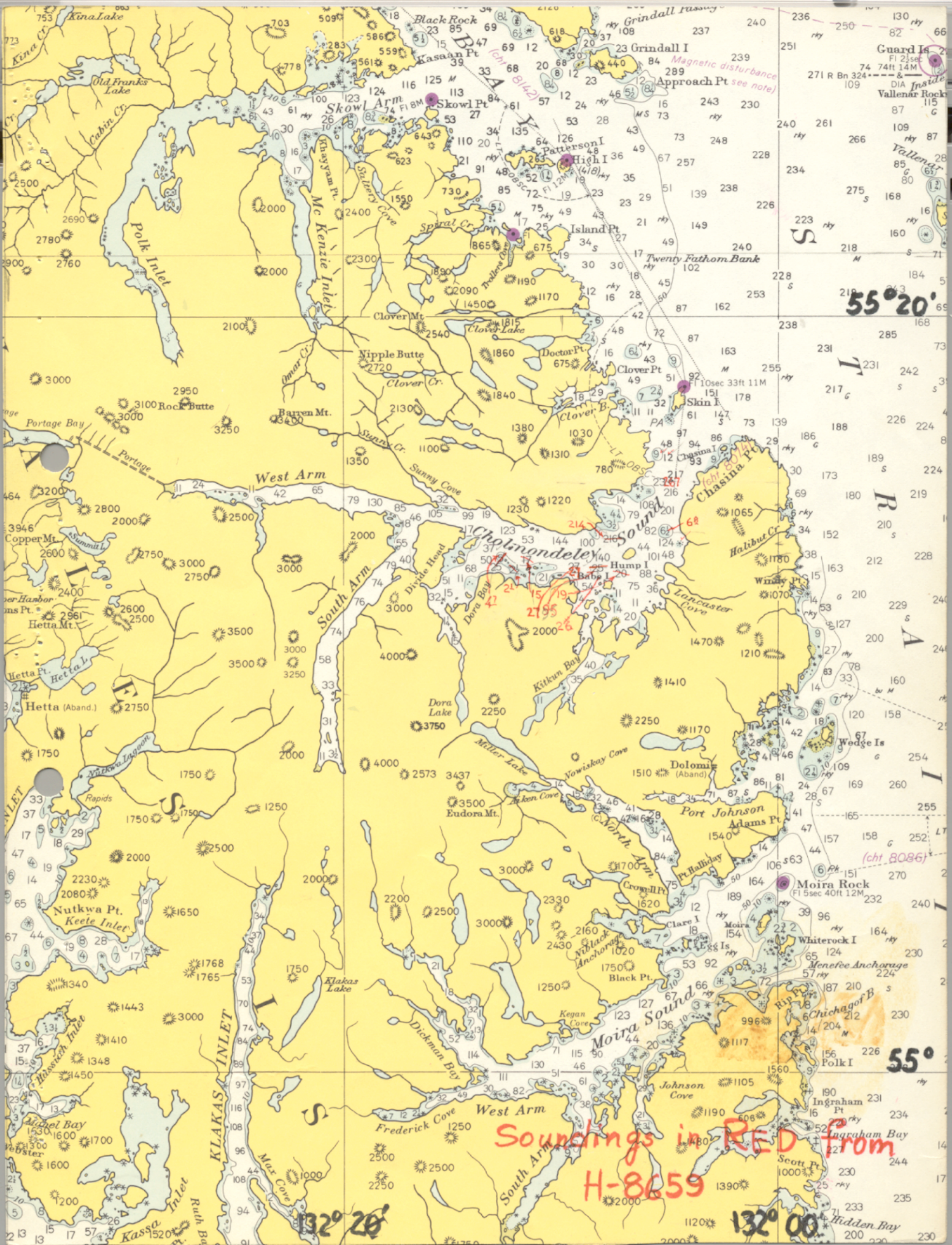
Examined and Approved:



Chief
Marine Chart Division



Associate Director
Office of Hydrography
and Oceanography



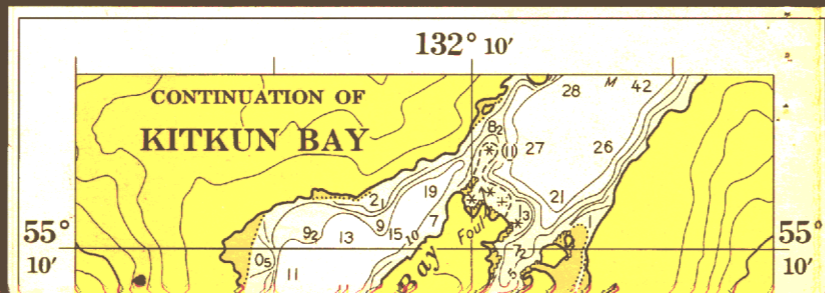
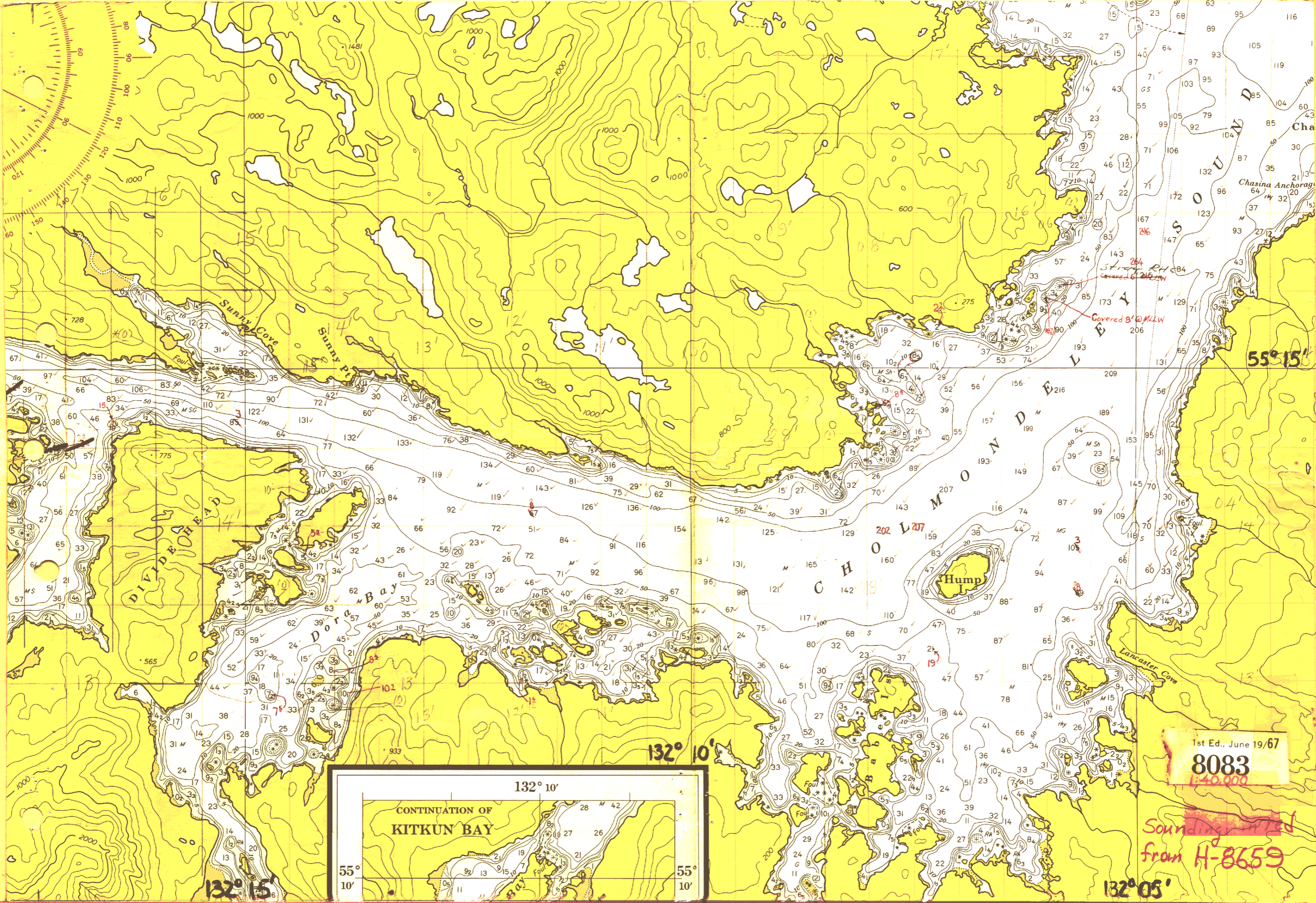
SOUNDINGS IN RED FROM
H-8659

55° 20'

55°

132° 20'

132° 00'



1st Ed., June 19/67
8083
1:40,000

*Sounding corrected
from H-8659*

55° 15'

132° 10'

132° 15'

132° 05'

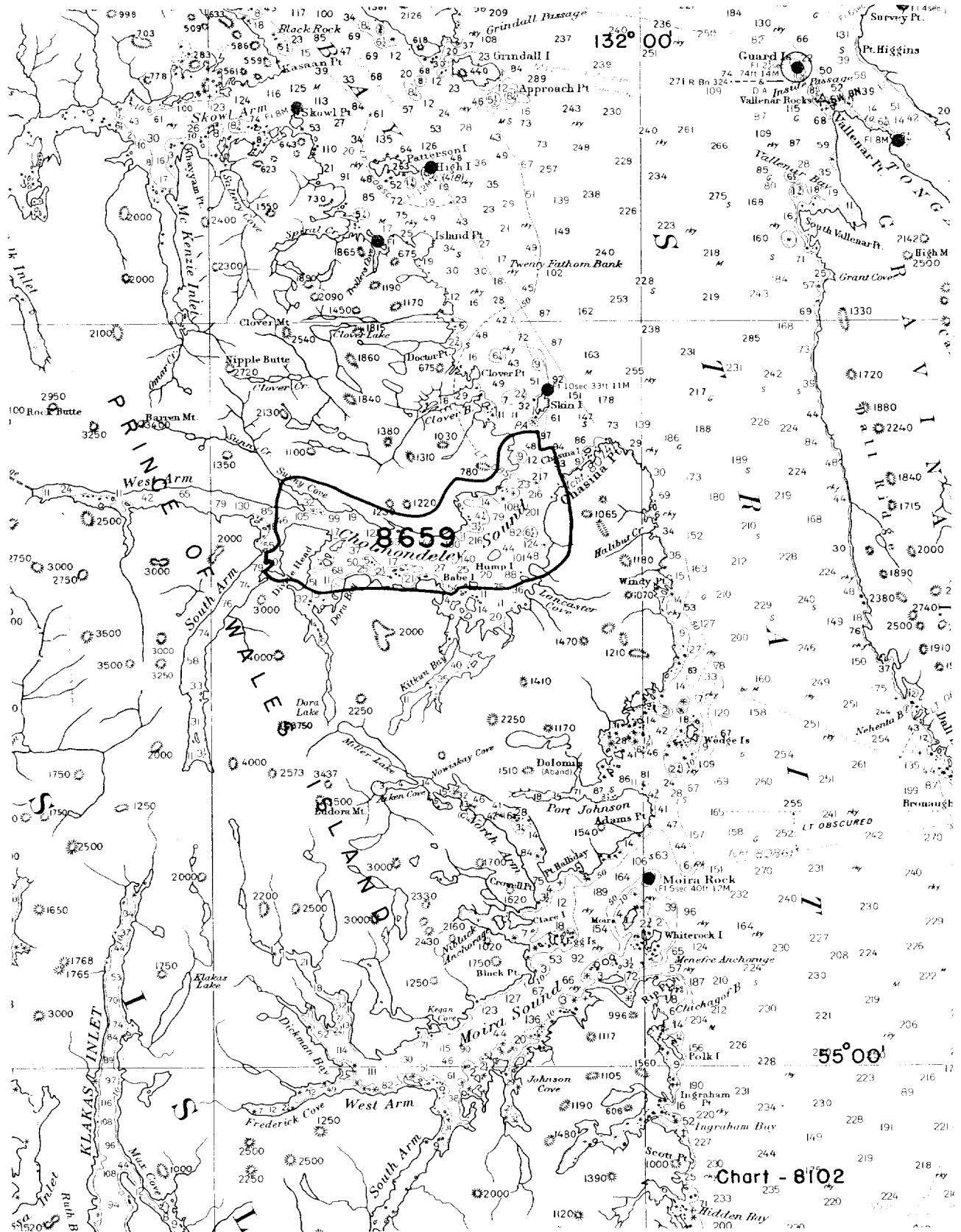


Chart - 8102

