

DAILY LOG

CRUISE
NUMBER

2000-06

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION

DATE

May 12 - 26, 2000

VESSEL

CCGS J. P. Tully

PROJECT

La Perouse, Effingham,
Juan de Fuca, Hot Vents,
Georgia Strait, CRD

Start Cruise 2000-06

Date Time (PDT)

- May 12 0900 - Tom Jahase Mary O'Brien, Dave Spear
John Love, Dave Ritchie, Mel O'Hareby
meet at 10.5 and load trucks
- Tom + John pick up rental van
- Reg Bigham, Jane Fert and Will Fert
pick up along route
- 1400 - Shore party meet J. P. Tully in
Port Alberni
- existing science crew (D Mackas
cruise 2000-08 depart.
- Mary + Mel service sediment traps
- rest of crew setup lab + ship
for cruise
- recovered moorings CTC 3 and CTC 10
cleaved up and packed away
- radio interference problem mentioned by
previous crew proved to come from the
new power supply - changed power
supply and interference was reduced
+ eliminated
- uneven movement of heave compensator
rams is not likely a problem but
will be monitored during cruise
- 2130 - Mary + Mel complete sediment trap
service and leave ship.
- ship departs for PA13 CTD/Rosette
for Dario's program.

13 May 2000

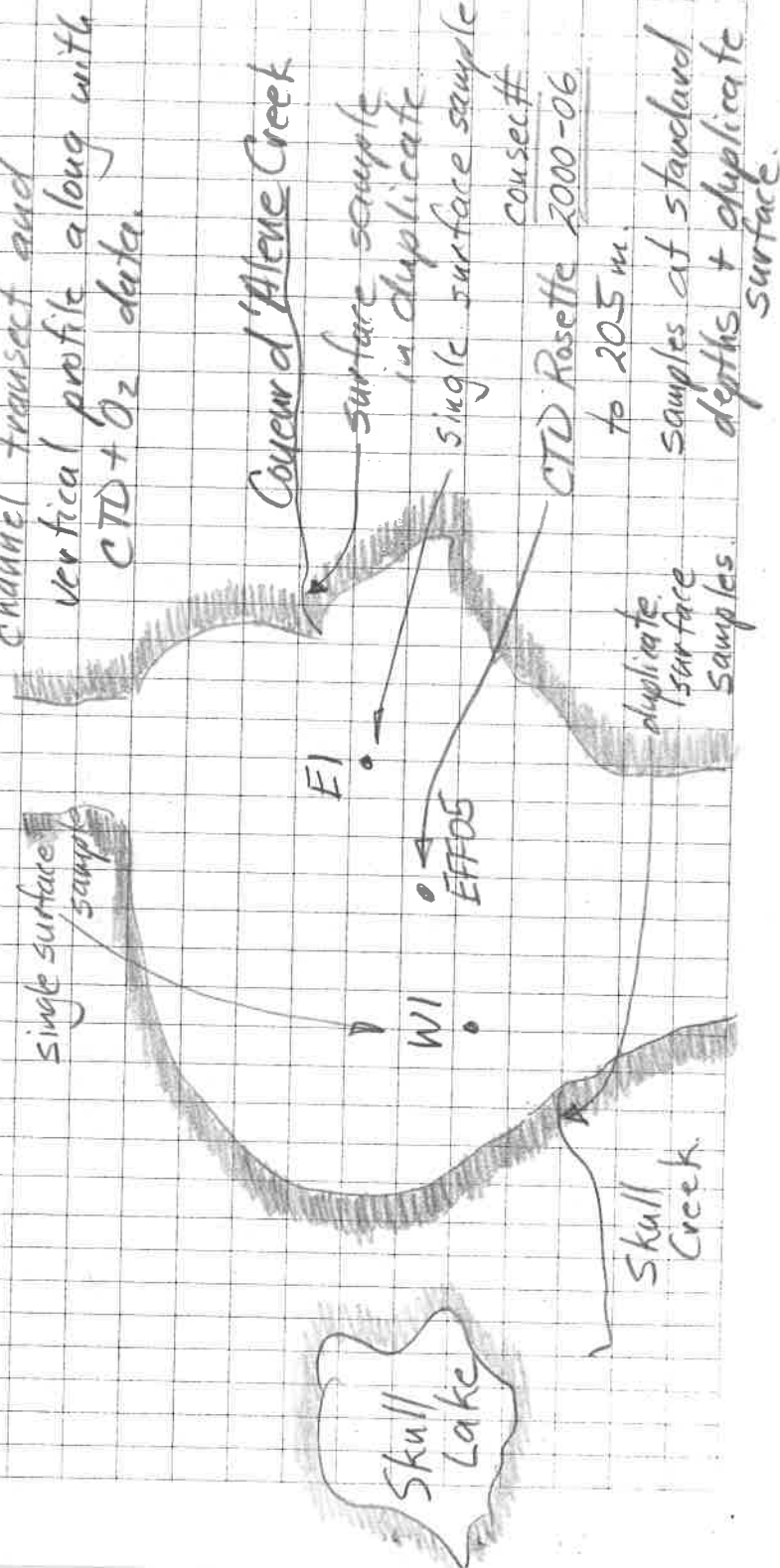
Changed CTD from 0443 to 0585, 0443 does not allow pump control unable to turn pumps on for CTD 0585. Pumps start only with saturation in cell. New CTD was suggested to allow pump control.

May 13 0803 - deployed mooring CTC 11-C
at 48° 59.137' 125° 10.927'
in 86 m water with a 3 m high tide included
tide + draft corrected depth = 83 m

0949 - deployed mooring CTC 3-C
at 49° 04.383' 125° 09.493'
in 116-117 m water draft corrected
but with a 2 m + tide.
= depth is 114 m.

- at head of inlet and at EFF05 completed
Sr + Pb sampling for Brian Cousens.
- at inlet head - Effingham Creek
- surface sample in duplicate

- at EFF05 sample a creek
on either side, completed cross
channel transect and
vertical profile along with
CTD + O₂ data.



DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month May			Ship Tully			Cruise I.D. 2000-06			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
13	PA13				1	49 07.68	124 48.47				1-8			check data file for proper surface value
	ETC								131					
13	ETC	Buc	1831											Sr + Pb samples
13	EFF01	ROS	1831		2	49-05 57	125 11 66				9-13			
13	EFF02	ROS	1853	BE	3	49 501	125 10 29				14-19			
13	EFF03	ROS	1946	BE	4	49 04 28	125 09 43				20-27			
13	EFF04	ROS	2023	BE	5	49 03 11	125 08 60				28-32			
13	EFF05	ROS	2056	BE	6	49 02 55	125 09 16			205	33-43			
13	EFF06	ROS	22:02	BE	7	49 01 83	125 09 18			151	44-52	9		
13	EFF07	ROS	2303	BE	8	49 01.21	125 09.38		118	112	53-60	8		
13	EFF08	ROS	2333	BE	9	49 0.67'	125 10.22		86	82	61-67	7		
13	EFF09	ROS	2356	BE	10	49° 0.69	125° 10.91'		55	54	68-73	6		
14	EFF10	ROS	0042	BE	11	48° 59.82'	125° 11.22'		99	94	74-80	7		
14	EFF11	ROS	0113	BE	12	48° 59.12'	125° 11.04'		86	85	81-87	7		
14	EFF12	ROS	0146	BE	13	48° 58.00'	125° 10.45'		94	90	88-94	7		calm, warm weather
14	EFF13	ROS	0213	BE	14	48° 56.55'	125° 10.62'		106	104	95-101	7		
14	A5	ROS	0407	BE	15	48 59 65	124 53 46				102-115	14		

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

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May 14 PDT 0755

- on station JF2C-D
- sent transpond - no reply

- sent CDF

- sent transpond ranges = 196 + 200
app 68 m dist.

- moving off. 1 cable for release.

- ranges 297, 301 m

app. 235 m dist

0805 - sent BFGH to release #002
- received positive response
range 332, 334, 336

- sent BFGH

- received positive response
ranges 319 → 307 rising
306, 305,

ranges increasing as ship
drifts and mooring may be
drifting with current on its
rise.

range 375, 376 and rising.

0819 - ranges 374 → 368 dropping again
365 363 → 354 dropping
346 → 342

0822 339 338

0826 - ranges up 359 360

0830 - back on release position
331, 303, 304, 305, 306.

- mooring has not started to rise
306

0832 - sent BEFG to release #003

- received positive response

- ranges 316 316, 317, 318 → 322

- ranges 328, 327, 326, 324

0845 - ranges 335 → 337 mooring not
rising.

0855 - decide to drag - setting up and
moving directly over beacon to
confirm it.

May 14 0856 - recovery ✓ F2C - continues

- 0857 - on position, directly over
- range 192, 194 = distance of 38 m.
range 191, 189
- setting up for drag.
- moved off / cable while drag is
set up to be able to send more
release codes
- 0906 - $1\frac{1}{2}$ cable away range 319 → 324
- sent BEFG - received positive response.
- sent BFGH - received positive response.
- range 365 → 382, 385, 393
- sent CDEG.
- both releases off - no ranges
- sent CDF
- both turned on again.

0913 - sighted on surface.

- recovered without further incident once
on the surface

NB :- floatation configuration depends
main float such that
relocating aids are submerged
- this same set of releases
caused same problem last
spring - either there is
something wrong mechanically
or it has to do with the
conditions of spring.
i.e. more mud along bottom?

May 14 Time PDT

✓ on station ✓ F3A-D

1051 - sent 6442 for FRI ON

- received confirm

- range 212 dist = 96 m.

- range 225, 226, 237, 240
decide to drift off an

app. 140 m dist.

- drifting range 262 181 m dist.

1058 - sent 6441 and 6484 received executed

1059 - sighted on surface.

- top ball has considerable growth.

1240 - on station ✓ F2E-D for recovery

- no range

1241 - sent BCE

- no reliable ranges received
280, 278 counter stopped but too much
noise otherwise

- moved onto mooring location
and came out of generator mode.

- no ranges on station, also used dunking transducer.

- sent CDFG, BCE and transpond repeatedly

- no response from mooring

- listened with pinger received no signal
drifting off

1307 - moved back on station - try again.

- directly over location - no pinger
signals

- sent BCE + transpond commands

- no response

- search using dunking transducer, stopping 2 mi.

#1 1343

- 48° 15.457' sent BCE x 2

124° 05.520' - transponding

- no response.

- 48 13.748

- sent BCE x 2 no response

124 05.715

- transpond no response

- 48 14.003

- sent BCE x 2

124 06.460

- transpond - faint responses at

app. 1100 m - does not stop
counter



May 14 1416 PDT - search for JFE-D continues

1420

48° 14.26'

sent BCE x 2

no response.

124° 07.157'

- transponding

138m 139m

Bingo.

→ 153m = 40m*
ranges dist.

- listening with pinger receiver

- got 2 strong pinger

signals - the mooring is
intact

1431

- range 417, 418

= 380 m dist.

- sent ACFG - received positive response.

1434

- on surface

- head off to do JF CTD Lines

JFE JFD JFC

Overthrust GPS feed to lab.

removed two data strings to see if Seabird

can get correct data into HDR files. Up & now
the 1st/long data has been written to the program
done in header file.

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Year					Month <i>May</i>					Ship			Cruise I.D.		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments	
14	JFE7	CTD	2254		16	48 16.37	124 15.00		88.	81.	—		BM		
14	JFE6		2318		17	48 17.86	124 14.97		126.	174.	—		BM		
14	JFE5	ROS	2343		18	48 19.38	124 15.09		213	213	102 - 103	2.	BM	cal samples	OK
15	JFE4	ROS	0012		19	48 21.28	124 15.08		222.	223	104 - 106	3	BM	cal samples	
15	JFE3	CTD	0046	BE	20	48 23.31	124 14.99		184.		—		BM		
15	JFE2	CTD	0114	BE	21	48 25.26	124 15.01		134	131.	—		BM		
15	JFE1	CTD	0141		22	48 27.25	124 15.07		29.	24.	—		BM		
15	JFD1	CTD	0302		23	48 23 07	124 0 08		62				AL		
15	JFD2	CTD	0324		24	48 21 80	124 0 07		122				AL		
15	JFD3	CTD	0345		25	48 19 66	124 0 12		165				AL		
15	JFD4	CTD	0412		26	48 17 60	124 0 07		190				AL		
15	JFD5	CTD	0441		27	48 15 77	123 59 92		182				AL		

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May 15

PDT
0825

- on station CRD-10-C

for recovery

- ranges 203, 203, 204.

0830

- range 213

- sent BCD F - received positive response

0831

- mooring sighted on surface

0932

- deployed CRD10-D in 275m water at position:

48° 37.885'

123° 23.411'

- depth corrected for draft but not tide

- contacted Steve Mihaly ashore

- sent ADCP and some excess instruments back to L.O.S.

- Dave Ritchie went for ride.

- S4 from JF3A was sent ashore full of data for Les to deal with

- headed for Georgia Strait mooring deployments

- rubber boat rejoins ship en route

1331

- deployed TM1A in 234m corrected depth at position

49° 00.398'

123° 27.575'

1408

- deployed TM2A in 313m corrected depth at position

49° 00.850' 123° 25.685'

1439

- deployed TM3A in 287m corrected depth at position

49° 01.297' 123° 24.405'

1521

- deployed TM4A in 251m corrected depth at position

49° 01.742' 123° 22.911'

1635

- deployed TM5A in 202m corrected depth at position

48° 54.190' 123° 16.053'

May 15

1645 - head for 1.0.S
1800

- launched 733 to pick up coolers + ice pack and small items needed by ship and science
- landed saltwater pump which failed last night.

- this is the old pump.

- the system is now running on new pump and there is no spare.
- Jane Fert went along for this ride

- the ship is heading for JFA and B CTD lines to be done overnight.

May 16

0800 - on station JF3A for deployment.

0933 - deployed JF3A-E in 188 m corrected water depth at position:

48° 17.102'

123° 58.713'

1115 - deployed JF2E-E on station in 150 m water.

- Witness buoy + top SG17 still on surface
- checked situation + concluded there must be a line length mistake.

- turns out one mooring line was fabricated for JF2E from older drawing when mooring was in 170 m depth (ie.)

a 52 m length was used instead of a 32 m length.

- station keeping + safety considerations resulted in decision to release mooring and redeploy. This was completed with little trouble. The spare anchor and drop line were used.

- mooring set up and deployed after lunch and after some engine trials conducted by ship's engineers.

1353 - deployed mooring JF2E-E using all the same components from the original mooring launched at 1115 PDT in 149.5 m water

at: 48° 15.080' 124° 09.785'

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Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments	
15	JFD7	CTD	05:21	0547	28	48 11 82	123 59 98		54				a	Station out of order due to traffic	
15	JFD6	CTD	05:27		29	48 11 81	123 59 98		113				w		
15	JFC6	CTD	0707	BE	30	48° 10.41	123° 44.98		55	50			JE	flat calm	
15	JFC5	CTD	0734	BE	31	48° 12.39	123° 44.99		141	136			JE		
15	JFC4	ROS	0805	BE	32	48° 14.39	123° 45.01		171	170	107-108	2	JE	sal. calib	
15	JFC3	CTD	0836	BE	33	48° 16.51'	123° 45.05		182	178			JE		
15	JFC2	CTD	0918	BE	34	48° 18.46'	123° 45.00		173	170				traffic delay	
15	JFC1	CTD	0956	BE	35	48° 20.19	123° 44.99		62	55				no trace m. sounder	
16	JFA1	CTD	04:22	BE	36	48° 22.09	123° 20.09		100				a		
16	JFA2	CTD	04:43	BE	37	48° 20.77	123° 20.16		44				aw	Depth 44m - listen @ 100m	
16	JFA3	CTD	05:17	BE	38	48° 17.29	123° 19.97		96	90			aw		
16	JFA4	CTD	05:47	BE	39	48° 14.29	123° 19.93		58	50			aw	Depth 58m - listen @ 90m	
16	JFA5	CTD	06:13	BE	40	48° 11.82	123° 20.00		94	92			aw		
16	JFA6	CTD	06:50	BE	41	48° 9.14	123° 19.97		54	49			aw		
16	JFB5	CTD	0828	BE	42	48° 09.86'	123° 35.24'		57	55			JE		
16	JFB4	ROS	0914	BE	43	48° 11.79'	123° 35.31'		136	132	109-110	2	JE	fog, sal. calib	
16	JFB3	CTD	0946	BE	44	48° 13.90'	123° 35.28'		160	161			JE	more fog	
16	JFB2	ROS	1040	BE	45	48° 15.85'	123° 35.28'		193	189	111-112	2	JE	y.m.f + sal.	
16	JFB1	CTD	1112	BE	46	48° 17.70'	123° 35.32'		158	152			JE	clear	

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May 16 Time PDT

1450 - on station JF2D-D for recovery

- sent 6412 FRI-DN

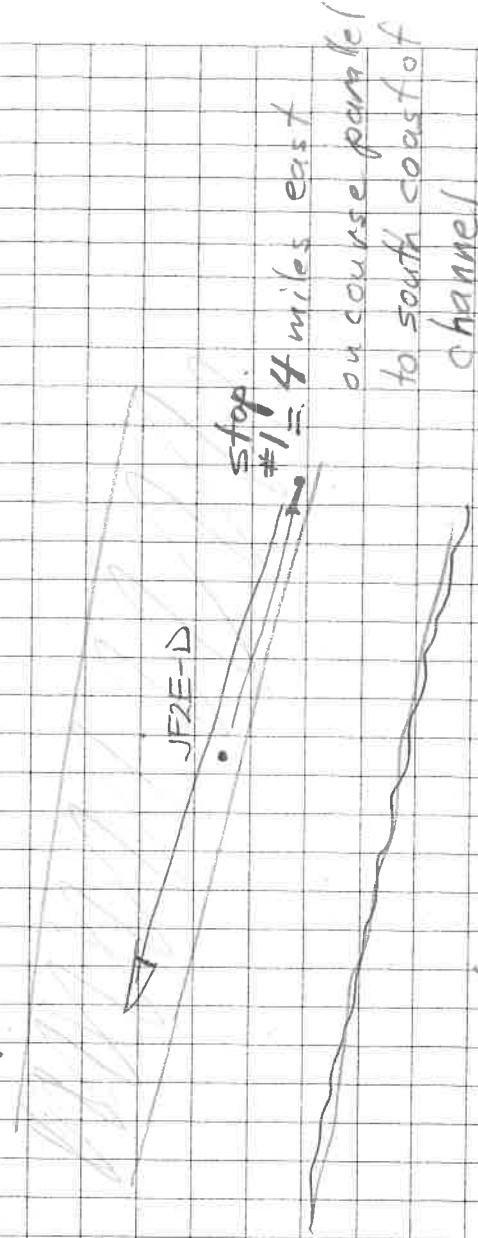
- no transponders

- sent 5000 repeatedly - no results

- moving back on station to try pinger - we have drifted off.

1508 - on station listening with pinger receiver

- mooring not on site - start search, setup search pattern



- stopping at 1 mile intervals.

1540 #1 48° 17.147' 124° 07.250'
950 951 954 964, 997 →
1050 → 1185

* We found it!

range 1025 m → heading south east

range 981 m

886 m 867 → 814

→ '540' → 588 → 732

- moved onto a perpendicular course over point

- continue sounding to approach mooring.

- actually arrived alongside mooring within 200-300 m - witness buoy at surface

- depth is 192 m meters - mooring has

been dragged into shallow water and left 1646 - sent 6411 and then 6484 for release

- did not release, but received + executed.

- sent 6411 and then 6484 again.

- mooring surface partially then stopped.

4 Cont'd

- with top float at surface
- app. 1700 - we were setting up to pull on it with boat when subsequent sub surface buoys came up
- finally the entire mooring was surfaced.

- RCM 718 was seriously damaged
 - entire gimbal housing was bent.
- Finger 9398 rod bent in an arc
- Witness buoy 7069 - glass broken + flooded.

- proceed to JFF and JFG CTD lines

1903 2000-06 CTD umb 1648 put onto zip deck

- Will Fert has injured his back during launching of mooring JF2E just before lunch.
 - this was reported to Chief Sci. and to medical attendant Al Keene.

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17	JFF7	CTD	0211		47	48 21.11	124 30 06		31	25				
17	JFF6	CTD	0228		48	48 22.55	124 30 01		110	105	113			loop cal sample
17	JFF5	ROS	0311		49	48 24 49	124 30 08		212	200	114	1	JL	Cal sample @ 164m
17	JFF4	CTD	0350		50	48 26 56	124 30 24		228	220				
17	JFF3	ROS	0423		51	48 28 51	124 30 05		213		115	1		
17	JFF2	CTD	0455		52	48 30 54	124 30 15		140	135				
17	JFF1	CTD	0522		53	48 31 93	124 30 01		60	52	116			Loop
17	JFG1	CTD	0623		54	48 34 09	124 40 01		47	41			JL	
17	JFG2	CTD	0649		55	48 32 43	124 39 97		135	130			BH	
17	JFG3	ROS	0721		56	48 30.36	124 40.03		237	235	117-119	3	BH	
17	JFG4	CTD	0758		57	48 28.40	124 40 00		257	255			BH	
17	JFG5	CTD	0833		58	48 26.41	124 40 07		222	218			BH	
17	JFG6	CTD	0911		59	48 24.38	124 39 99		80	75			BH	
18	LA01	ROS	0012	BE	60	48 29.47	124 43.79		261	258	120-131	12	JE	
18	LA02	ROS	0121	BE	61	48 26.23	124 51.38		308	300	132-144	13	JE	
18	LA03	CTD	0227	BE	62	48 22.81	124 57.73		111	105			JE	
18	LA04	ROS	0317	BE	63	48 19.25	125 03.98		193		145-154	10	CW	
18	LA05	CTD	0418	BE	64	48 16.06	125 10.56		122	118			CW	
18	LA06	ROS	0512	BE	65	48 12.65	125 17 14		114		155-162			

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May 17 PDT

- 0735 - on station JF2A-D for recovery
- previously the top buoy was reported in Kyugot.

- 0737 - sent 6422 received 113 range
- transponds at 119, 122

- 0745 - moved to release position 258 m
- sent 6421 and 6484

- received positive response
- 0747 - sighted on surface
- single steel ball

- top of mooring missing indeed
- wire looks cut approx 20 above bottom buoy.

- rest of mooring recovered without incident.

- setup new mooring
- 0926 - deployed JF2A-D at position 480 24.788' 124° 09.940' in 104m corrected depth.

- 1000 - on station JF2B-D for recovery.
- sent 6462 - received + executed

- range 161
- sent 3000 - ranges 162, 164, 167
- right on top.

- moving off to release position
- range 404

- 1006 - sent 6461 sent 6484

- no response
- sent again. - several attempts.
- received positive response

- 1012 - sighted on surface.

Date Time PDT

May 17 1207 - on station SFA-D for recovery
- sent 6452 - received 202 range
- moved to release position
- range 334 = 265m horizontal
1212 - sent 6461 and 6484
- received executed and sighted
on surface.

- recovered mooring without incident
cleaned up and prep for redeployment.

1454 - deployed mooring SFA-E
at position $48^{\circ} 23.079'$
 $124^{\circ} 20.339'$
in 205.5 m depth corrected for
draft.

- head for LA line to do CTD/Rosettes

- contacted Steve Mihaly to
arrange ADCP return to ship.

May 18 app 0500 - the motor shaft seal on CTD winch
#1482 started to leak - perhaps
from switching gears while under
power or perhaps from wear
- CTD operations were transferred from
this winch to the spare #1233

- the chief sci was notified

- Steve Mihaly's departure from LOS.
was delayed until the winch stop
opened.

- arrangements to bring out a 1060
spare motor and spare seals
+ "o-rings" were made.

- meanwhile winch was repaired
using the onboard spare parts
in winches spares kit. - this spares
kit has to be repacked for next cruise

*

oxygen standards
 V_6 .007 .006 / leaking second tubing
 .002 .000 / repaired
 .023 .003

V_6 .005
 .006 = .005
 .004

$V_2 = .721$
 .721
 .721

Date Time PDT

May 18 1200 - we head into Port Renfrew to *
 service the Port Renfrew tide gauge
 and meet Steve Mihaly
 - received ADCP, small item + spare hydraulic motor
 - Will Fert's back has not improved
 even though he had been stood down
 from watches since May 16
 - Will and I decide it is best for him
 to go ashore for medical attention
 - ship captain in our decision.
 - proper WCB forms completed
 - Will lauded to be taken home by
 Steve Mihaly

1300 - we depart Port Renfrew for JF2C-E
 for deployment - preparing mooring
 along the way

1520 - deployed JF2C-E in 189m
 water corrected at position:
 48° 21.230'
 124° 12.274'

- a 1.2m length of chain was
 added to allow ADCP float to
 sit up right in water allowing
 recovery吊钩 to work.

1535 - leave for LD Line for CTD's.

18 May Sp LA08 CTD pump has damaged
hydraulic motor seal, leaking oil and back.
called engineers to see if they can replace seal.

Switched over to manual 1433, 942 m of cable only.

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18	LA07	CTD	0610	BE	66	48° 9.19'	125° 23.92'		114	111				Loop Sample
18	LA08	ROS	0708	BE	67	48° 06.05'	125° 31.03'		144	139	163-171	9	JE	
18	LA09	CTD	0823	BE	68	48° 02.37'	125° 37.21'		372				JE	depth listed as 292 - see secondary & primary salinity do not agree
			0840	EN	68	48° 02.50'	125° 37.50'							
18	LA10	CTD	0932	BE	69	47° 59.03'	125° 43.46'		917	851				not to bottom - not enough wire - took to last layer on winch
			1009	EN		47° 59.20'	125° 43.70'							
19	LD01	CTD	0628	BE	70	49° 00.08'	125° 44.16'		37.9	35				PAR removed
19	LD02	CTD	0700	BE	71	48° 58.35'	125° 46.94'		44	38			JE	
19	LD03	CTD	0734	BE	72	48° 56.60'	125° 50.44'		49	41			JE	
19	LD04	CTD	822	BE	73	48° 53.17'	125° 57.01'		65	60			JE	
19	LD05	CTD	0911	BE	74	48° 49.65'	126° 03.58'		92	87			JE	
19	LD06	CTD	1001	BE	75	48° 46.19'	126° 10.21'		138	137			JE	
19	LD07	ROS	1051	BE	76	48° 42.68'	126° 16.78'		540	531	172-173	2	JE	salinity cd samples
			1113	EN		48° 42.78'	126° 16.99'							
19	LD08	ROS	1200	BE	77	48° 39.24'	126° 23.40'		768	751	174-175	2	JE	salinity cd. samples
			1229	EN		48° 39.58'	126° 23.18'							
19	LD09	CTD	1319	DE	78	48° 35.65'	126° 30.13'		1050				JE	
			1337	BO		48° 35.76'	126° 30.06'			1041				
			1353	EN		48° 35.69'	126° 29.92'							

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LA09 - For 1st 230m of downcast primary-secondary varied between .6 and .15 before settling down

- Switched to winch 1233 - 3 motor seals leaking on original winch

Date Time PDT

May 19 -0817 - AI-DD for recovery
- on station ranges 480, 481 m - directly on top 53 m distance

-0831 - moved to release position ranges 555, 558 = 253 m distance
- sent ABEF received positive response but very faint (generator mode still engaged)

- sent ABEF again received stronger response.

-0832 - sighted on surface
- mooring recovered without incident.

-1251 - launched mooring AI-EE in 498.75 (499) m corrected depth
at position $48^{\circ} 31.723'$ $126^{\circ} 12.108'$

-1315 app. - head to finish LD Line left from last night.

19 May Sh LD11 which 1482 unable to pull
Reactor up from 1500 db in high gear. Low gear worked
well but speed is .7 m/sec. Flow was 40 g/min at 1400 psi

Date Time PDT

May 20,

0745 - on station ER-WASP-3 for
recovery.

- range 2194 m
2200 m

- other ranges that were not as
good.

- range on XT600 - 2188 m
2187 m
2188 m

- we are right on top

0754 - sent CDEF - received positive
response

XT6000 ranges.

- 2085 2001

2071 1948

2061 ~~2~~ - rising.

2034

- move off to safe position

0823 - VHF received on surface 1 km away

- steam toward mooring

- mooring in sight by binoculars but
not received by Telonics.

- recovered without incident.

21 May LGO9 mixed hydraulics overhauling. Continued
emergency to check backing water. Pump lines had
rust and mouse shells on the line.

1000 - complete CTD / WASP calibration cast
to 2140 m depth @ 0.5 m/sec up and
down. - found vent plume at 1800 m
depth (app.) see cast #81

1454 - launched ER-WASP-4 @ 47° 57.521'
129° 05.542'

- in 2176 m depth
- head for LG Line.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month			Ship				Cruise I.D.			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments	
19	LD10	ROS	2208	BE	79	48° 32.17	126° 36.45		1475	1484	176-179	4		LOOP + CTD CAL SALS	
			2230	BO											
			2257	EN		48° 32.26'	126° 36.68'								
19	LD11	ROS	2345	BE	80	48° 28.72'	126° 42.96'		1590		180-182	3		Sal cal	
20			0010	BO		48° 28.94	126° 43.32'			1592				Winch stopped @ 1320 to change gears on upcast	
				EN										2 @ 1200 m	
20	ERWAZP	ROS	1701	BE	81	47° 57.37	129° 05.40		2112		183-205	23		Tempmin at halocline	
				BO						2140				Plume @ 1880 m	
			1952	EN		47° 56.36	129° 04.15							but harder data	
21	LG09	ROS	0703	BE	82	48° 51.20'	127° 19.40'		2056		206-208	3		Salinity cal samples	
				BO						2070				overheating hydraulics	
			0821	EN		48° 50.97'	127° 19.73'							fixed blue station	
21	LG08	ROS	0926	BE	83	48° 55.31'	127° 13.26'		2064		209-211	3			
			0959	BO		48° 55.30'	127° 13.14'			2079					
			1032	EN		48° 55.25'	127° 13.05'								
22	LG00	CTD	0118	BE	84	49° 21.51	126° 34.62		38					seaward of stn to avoid	
	LG01	ROS	0143	BE	85	49° 20.58	126° 35.26		54	43	212-216	5		Mr. Rock DO ADVISE	
	LG02	CTD	0224	BE	86	49° 18.74	126° 38.29		100	93					
	LG03 ^{2A}	CTD	0304	BE	87	49° 16.97	126° 40.96		115					* EXTRA STATION	

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Station LG 2A

Date Time PDT

May 21

0816

- on station TG Totuo.
- range 94m = 62m distance.

- move off to release position.

range 260m = distance
250m.

0823 - sent ABFH.

0824 - sighted on surface

- recovered with difficulty due to rough seas, rain and lack of a pickup line

* - TG 12A #111 lost due to corroded spareky wire used as recovery line to instrument.

0949 - deployed Totuo TG-F in 69m at position $49^{\circ}00.942'$
 $126^{\circ}07.800'$ 69m

1010 - head for EO3-DD for recovery.

1350 - on station EO3-DD

- range 392m
385m

directly over mooring.

- moving off to release position

1356 - range 538, 542m = 365m dist.

1357 - ABFH received positives response
- sighted on surface

- thermistor chain damaged cannot be redeployed. - can be repaired

1630 - on station EO1-DD for recovery.

- range 260m, 276 dist. = 240m.

1634 - sent ABCF - received positive response.
- sighted on surface.

- recovered without incident

1700 - head for near shore end LGLine

NOTE The stations from LGO outbound in the log are not the correct position. Go by Lat Long not the station ID.

This is corrected at Station LGO5 cons # 90

Looks like station 87 was an extra station and was marked as LGO3 so that the next (LGO4) was really LGO3 and (LGO5) LGO4 and so on

The reason this happened was the ship stopped on LGO2a This was already laid in to the plotter and we thought the ship was at LGO3

UTC 01:45
23/05/2000

changed seawater pump and rebuilt screen pump
more pressure and volume of water.

[Signature]

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month			Ship				Cruise I.D.		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
22	LG04	ROS	0338	BE	88	49 15 06	126 43 72	GPS	124		217-225	9	h	
22	LG05	CTD	0435	BE	89	49 11 33	126 49 39	GPS	145				h	Ship's position not the same as listing
22	LG05	CTD	0546	BE	90	49 07 46	126 55 28	GPS	257					See note A
22	LG06	ROS	0642	BE	91	49 03 65	127 01 11	GPS	934		226-243	18	h	ship set Nat > 1kt.
			0702	BO		49 03 98	127 01 06			911				
			0733	EN		49° 00 43'	127° 00 21'							missed bottle at surface
22	LG07	ROS	0837	BE	92	48° 59.40'	127° 07 15'		1760		244-245	2	JE	hit bottom - lab radio was on 'high'
			0908	BO		48° 59 47'	127° 06.86'			1780				Sal pri - sec off by ~ 02 units
			0938	EN		48° 59.54'	127° 06.93'							500m on upcast.
22	LH09	CTD	1135	BE	93	49° 05.57'	127° 28.70'		2050				JE	
			1209	BO		49° 05 56	127° 28 72			2043				
			1241	EN		49° 05.55'	127° 28.71'							
23	LJ10	ROS	0021	BE	94	49° 11.52'	127° 54.70'		2484		246-248	3	JE	Salinity cal samples.
			0100	BO		49° 11.65	127° 54.45			2516				slimed at 1000m on upcast.
			0143	EN		49° 11.80	127° 54.26'							
23	LJ09		0239	BE	95	49 16.14	127 42.21		2486				BM	
			0313	BO		49 16 08	127 47 28			2516			SL	
			0355	EN		49 16 38	127 47 58						h	

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Date Time PDT

May 22

0915 - on station E01-EE for
 deployment
0945 - deployed mooring E01-EE
 in 48 m corrected depth
 at position $49^{\circ} 17.486'$
 $126^{\circ} 35.745'$

- proceed to E03 for deployment

1237 - deployed mooring E03-EE
 in 400 meters corrected depth
 at position

$49^{\circ} 05.553'$
 $126^{\circ} 55.944'$

- proceed to outer end L-J Line.

DAILY LOG

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23	LJ08	CTD	0442	BE	96	49 20 07	127 40 93	GPS	1724		249-250	2	fl	LOOP ALSO	
23	LJ08		0506	Bo		49 20 12	127 40 97								
23	LJ08		0540	EN		49 20 11	127 40 93								
23	LJ07	CTD	0635	BE	97	49 24 01	127 34 68		1807				fl	Loop Sample	
23	LJ07		0700	Bo		49° 24.16	127° 34.72			1813					
23	LJ07		0729	EN		49° 24.31	127° 34.78								
23	LJ06	CTD	0816	BE	98	49° 27.89	127° 28.65		1024				JE		
			0834	Bo		49° 27.90'	127° 28.60'			1053					
			0849	EN		49° 27.89'	127° 28.56'								
23	LJ05	CTD	0937	BE	99	49° 31.64'	127° 22.62'		1069				JE		
			0957	Bo		49° 31.66'	127° 22.59'			1071					
			1011	EN											
23	LJ04	CTD	1120	BE	100	49 35.51	127 16.95		163						
			1124	Bo		35.52	16.92			155					
			1127	EN		49 35.51	127 16.93								
23	LK01	CTD	20:41	BE	101	49 55 47	127 18 85		61				fl		
23	LK02	ROS	21:16	BE	102	49 53 97	127 21 68		64		251-256	6			
23	LK03	CTD	2206	BE	103	49 50 49	127 27 58		79	71					
23	LK04	ROS	2301	BE	104	49 46.97	127 33.56		124	118	257-264	8	B/M	flour signal lost	

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Date Time FDT

May 23 - 0812 - on station BP1-DD for recovery.

- no contact using ship transducer.
- using dunking transducer. - faint returns 1624, 1697 were received

- listening with pinger receiver
 - both pinger signals coming in strong

- mooring is in place and intact both top and bottom pingers working.

- will try to release-moving off station for release.

-0835

- moved to release position.

- still no ranges from release

- pingers still coming in but fainter. - we are farther away

-0841

- sent ADEF

- * - no response from release - sighted on surface.

- recovered without incident except mooring was considerably fouled especially the top instrument
 - rotor blocked by growth

preparing mooring on deck

-1050

- deployed mooring BP1-EE in.

- 10' in depth corrected at position:

50° 03.662'

127° 53.459'

- head for LK Line for CTD/Rosettes.

Date Time PDT

May 24

- 0730 - off Kyngnot
 - contacted Mrs. Smith re: buoy
- 0830 - moved into Kyngnot harbour (outer)
Nicholas Channel and anchored.
 - dispatched 733 with Dave Spear and Dave Ritchie into Kyngnot city.
 - recovered a 11 ft missing parts of mooring JFA-D
 - top 37 + swivel + hardware
 - SG17 and Witness buoy 3733
- RCN 737
 - vane present but destroyed
 - pinger battery present but pinger broken off.
 - length of 5/16" wire up to buoy cut by towline. (3)
- 1000 - investigating Heave Comp. problems

- modifications to ram shaft ends resulted in lengthening the stroke of the rams allowing one side (stbd ram) to barely touch the guide rail end plate.

- we tried to repair this but did not work because thinner retaining nuts and special tool to install them had to be fabricated.

- Peter Gamble was requested to fabricate these items before ship returned May 29.
- Luc LeGault was requested to install them same day

- 1600 - depart Kyngnot for Gold River

- science work over side suspended
- log keep, sample analysis and securing lab for SAR period completed.

May 25

- 0800 - alongside jetty in Gold River
- 0930 - Charter bus arrives
- Science staff leave ship 1000 + arrive I.O.S. app. 1600 - 1700 hrs. + off land bus.

DAILY LOG

Ocean Sciences and Productivity Division

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[illegible]

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