

DAILY LOG BOOK

MISSION
NUMBER

Cruise
#2007-35

DATE:

From: May 13 to: May 21, 2007

VESSEL:

CCGS J. P. Tully

PROJECT:

La Perouse, Juan de Fuca, Effingham
Neptune, Victoria Sill

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

Cruise 2007-35 May 13-21, 2007 CCGS J.P. Tully

Date	Time (PDT)	
May 13	0800 - 1230	- complete loading and continue set up. - D. Spear, J. Eert, L. Perreault, S. Rose, H. Maclean, T. Juhász - J. Kennedy, E. Gramroth. - S. Zimmermann, B. Williams, B. van Harden berg, M. Dempsey
		all join ship to sail
		- D. Anderson comes on to test CTD system 0930 then leaves - P. Gamble " " " gather info. for Red-Lab
	1230	- depart I.O.S. for recovery at AS04
	1300	- completed ship orientation + safety meeting.
	1725	- on station 3067 2942 3165 some long distance ranges(?) 169 *165 161 161 *160 *159 m. *rec'd + exec'd.
		- moving off 2 cables to release 344m " 131 134 " maneuvering.
	1738	- app. 1 1/2 cable off sent 8211 for enable. - 305m 304m 302m sent 8215 "rec'd + exec'd."
	1742	- sighted on surface
	1810	- all on board cleaning up + head for app. 150m depth for IPY Tests

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY			Year 2007			Ship TULLY			Cruise ID 2007-35						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	LC 09	2253	BE	CTD	/	1	48 25.97	126 13.51	600		/	0	J.G./H.M.	✓	T: 10.62 S: 30.70
		2310	BO				48 26.05	126 13.19		458			T.J./D.S.		STOP TO TRIGGER
	START UP	2357	(BE)	?			48 26.00	126 13.27							6 RELEASES
15		0007	EN				48 26.00	126 13.26							
	LC08	0102	BE	CTD	US	2	48 29.42	126 07.10	200		/	/	JE/SR	✓	bottle 1 fired OK, 2
			EN							196					did not confirm →
															No bottles closed after 1.
															- wrong water
															Sampler config.
15	LC07	0200	BE	CTD	/	3	48 32.89	126 00.49	128				JE/SR	✓	
		0205	EN				48 32.90	126 00.49		124					
15	LC06	0254	BE	ROS	US	4	48 36.43	125 54.03	93		1-7	7	JE/SR		T: 11.04 S: 30.05
		0257	BE				48 36.41	125 54.07		83			H.M./L.P.		
		0304	EN				48 36.44	125 54.02							Box 6 OK'S
15	LC05	0351	BE	CTD	/	5	48 39.91	125 47.45	65		/		H.M./L.P.	✓	T: 10.79 S: 30.15
		0353	BO				48 39.91	125 47.46		55					
			EN												

Cast type:

BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

US = up/stop
 UN = up/no stop
 DN = down/no stop

Time Code

BE = beginning time of cast
 BO = bottom time of cast
 EN = end time of cast

DE = deployment time
 MR = messenger release time
 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 13 1823 - on station for IPY tests

- 3-4 CTD/Rosette casts completed - some problems identified.

2115 - test terminated. - pack up en route to Victoria to land IPY people + equipment.

2230 - 2 boat loads of IPY people + equipment landed at Pilot jetty.

May 14 0730 - en route to moorings A1 + NCBF ETA 1030
- calm seas clear sky

1020 - on station A1-QQ for recovery
- 540 - 521 range responses as we moved onto position. on site = 521 m.

- moving 2 cables off. 750 - 712 m

1029 - sent B535 msg = 712 sent B536 for release = 630 "rec'd + exec'd"

1033 - sighted on surface.

1145 - recovered and cleaned by - lunch.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year				Ship				Cruise ID			
MAY				2007				TULLY				2007-35			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	LC04	0444	BO	ROS		6	48° 43.39	125° 40.74	168		8-17	10	H.M./L.F.	✓	T: 10.11 S: 30.56
		0448	BO				48° 43.39	125° 40.74		160					Box 6 oxis (8-17)
		0459	EN				48° 43.38	125° 40.72							
15	LC03	0546	BE	CTD		7	48° 46.94	125° 34.23	136				H.M./L.F.		T: 10.08 S: 30.87
		0550	BO				48° 46.94	125° 34.23		125					
		0555	EN				48° 46.94	125° 34.23							
15	LC02	0626	BO	ROS		8	48° 48.64	125° 30.84	110		18-24	7			T: 10.13 S: 31.27
		0629	BO				48° 48.63	125° 30.85		100					
		0637	EN				48° 48.66	125° 30.85							
15	LC01	0705	BE	CTD		9	48 50.46	125 27.73	98		—	—	SE/R	✓	T: 9.1 S: 31.30
		0711	EN							90					
15	EFF13	0914	BE	ROS		10	48 56.45	125 10.68	102	96	25-31	7	SE/R	✓	T: 12.0 S: 27.3
		0923	EN				48 56.44	125 10.69							

Cast type:

BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

US = up/stop
 UN = up/no stop
 DN = down/no stop

Time Code

BE = beginning time of cast
 BO = bottom time of cast
 EN = end time of cast

DE = deployment time
 MR = messenger release time
 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 14

1238

- recovery of NCBF1.
- launched small boat to pull mooring and avoid tangles on recovery

1241

- ranging. - sounders turned off.
- ranges 886, 890, 888 m - but we are geographically on top
- moving off 902, 911, 916 → 1072 1125. → 1185

1251

- sent 9611 rec'd + exc'd range bad.

1253

- sighted on surface - boat going to top buoy.
- mooring came up off station
- top buoy is black with growth
- we will check position + depth
- looks like mooring in shallower spot.

1400

- all recovered + cleaned up
- top buoy had large wire marks and top pad eye has marks as if it had impacted against something - ie looks like hit by sledge hammer. - took picture.
- mooring recovered at 48° 29.998 126° 12.063 465 m
(ship crosses over position where mooring came up.)

1430

- set up for Acoustic Release Tests see notes

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year			Ship					Cruise ID				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments	
15	EFF12	0945	BE	ROS	US	11	48 57.97	125 10.50	93	85	32-38	7	JE/SR	✓	T113.3	S: 20.5
		0954	EN				48 57.96	125 10.52								
15	EFF11	1029	BE	ROS	US	12	48 59.12	125 11.03	87	80	39-44	6	JE/SR	✓	T113.8	S: 21.9
		1037	EN				48 59.11	125 11.03								
15	EFF10	1057	BE	ROS	US	13	48 59.83	125 11.24	99	92	45-51	7	JE/SR	✓	T113.7	S: 20.6
		1105	EN				48 59.82	125 11.26								Altimeter very noisy
15	EFF01	1652	BE	ROS	US	14	49° 5.542	125° 11.654	34		52-55	4	DS/TJ	✓	on Effingham casts.	
		1658	BO							33					2 mab	
		1702	EN				49° 5.537	125° 11.662								
15	EFF02	1726	BE	ROS	US	15	49° 5.006	125° 10.332	70		56-61	6	DS/TJ		interesting DO structure	
										67					2 mab	
		1735	EN				49° 5.002	125° 10.304								
15	EFF03	1750	BE	ROS	US	16	49 4.271	125° 9.383	119		62-69	8	DS/TJ		bottom 4 bottles anoxic?	
			BO							115					2-8 mab	
			EN				49 4.241	125° 9.368							4	
	EFF04	1827	BE	ROS	US	17	49° 3.080	125° 8.597	70		70-75	6	DS/TJ		2 mab	
			EN				49° 3.031	125° 8.635		67					Orcas on station	

Cast type:

BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

US = up/stop
 UN = up/no stop
 DN = down/no stop

Time Code

BE = beginning time of cast
 BO = bottom time of cast
 EN = end time of cast

DE = deployment time
 MR = messenger release time
 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Acoustic Release Test

app. 1430 May 14

- CTD/Rosette + releases lowered to 100m above bottom
- bottom finding pinger off
- sounders off
- we have pressure + altimeter + chart depth to go by.

- attached 6 new AR661 releases to rosette frame - shackled at top + tied bottoms together.
- used new TT801 deck unit. - issues
 - 115V - 230V connector European - needs mod
 - 24V power cable needs wire leads identified + tagged.
 - transducer has different connector - could not attach to hull transducer.
- #731 - ranged ✓ release with pinger ✓ pinger off ✓ ranged ✓
 - ↳ saw pinger on sounder
 - ↳ sounder track ends
- #734 - ranged ✓ released ✓ ranged ✓
- #732 - ranged ✓ diagnostic ✓ (vertical, 9.3volts) ✓ released ✓ ranged ✓
- #736 - ranged ✓ range - repeated multiple ✓ released ✓ ranged ✓
- #740 - ranged ✓ pinger on ✓ pinger track ✓ (questionable value) pinger off ✓ released ✓ ranged ✓
 - ↳ apparent on sounder
 - ↳ sounder track ends
- #741 - ranged ✓ audio ✓ released ✓ ranged ✓
 - ↳ ↑↑

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>May</i>				Year <i>2007</i>				Ship <i>Tull</i>				Cruise ID <i>2007-35</i>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	EFF05A	1929	BE	ROS	US	18	49° 2.808	125° 9.170'	198	1	76-86	11	DS/TJ		3 mab
15		1935	Bo							195					
		1948	EN				49° 2.815	125° 9.149							
15	EFF05	2006	BE	ROS	US	19	49° 2.542	125° 9.149	202	2	87-97	11	DS/TJ		anoxic? only at vox
										199					3.4 mab bottom
		2027	EN				49° 2.561	125° 9.162							
15	EFF06	2047	BE			20	49° 1.817	125° 9.150	152		98-106	9	DS/TJ		2.8 mab
		2052	Bo							150					
		2103	EN				49° 1.784	125° 9.170							
15	EFF07	2120	BE			21	49° 1.201	125° 9.473	119		107-114	8	DS/TJ		NMEA date came up 01/01/07
		2124	Bo							116					Restarted cast and overwrote
		2133	EN				49° 1.196	125° 9.474							2.8 mab
15	EFF08	2147	BE			22	49° 0.664	125° 10.198	87		115-121	7	DS/TJ		
		2150	Bo				49° 0.655	125° 10.216		84					2.5 mab
		2156	EN				49° 0.623	125° 10.270							
15	EFF09	2216	BE			23	49° 0.151	125° 10.793	60		122-127				
		2218	Bo				49° 0.131	125° 10.811		57					4 mab
		2224	EN				49° 0.110	125° 10.832							

Cast type:

BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

US = up/stop
 UN = up/no stop
 DN = down/no stop

Time Code

BE = beginning time of cast
 BO = bottom time of cast
 EN = end time of cast

DE = deployment time

MR = messenger release time
 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 14

1730

- release. testing ends

- proceed to CTD's on LC line + Effingham

May 15

0730

- re-entering Effingham to recover mooring EFO4

0830

- launched small boat

- approaching mooring to range on-top 99, 96, 95 m

- move off for release

0832

- 238 m range

- sent B534 - no response "in generator" mode + narrow shallow channel

- put dunking transducer in - got ship out of gen mode

Big Difference

0837

- 253 m, 252 m. sent B534 - rec'd + exec'd sighted on surface

app. 1300

- SAR call - dispatched rubber boat with medics to attend to accident at a fish farm

- science sampling was not effected

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007			Ship TULLY				Cruise ID 2007-35				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	EFF14	2336	BE	ROS	US	24	48 54.00	125 13.00	107		128-134	7	JE/SR	✓	T: 11.1 S: 28 ±
		2339	BO				48 54.00	125 13.01		100					
		2345	EN				48 53.99	125 13.01							
16	EFF15	0012	BE	ROS	US	25	48 51.40	125 14.99	95		135-141	7	JE/SR	✓	Rosette bottle 2 has
		0015	BO				48 51.40	125 15.00		90					leaking spigot
		0021	EN				48 51.40	125 15.03							
16	EFF16	0101	BE	ROS	US	26	48 47.68	125 15.96	114		142-148	7	JE/SR	✓	bottle 2 spigot did not
		0103	BO				48 47.64	125 15.99		107					leak.
		0111	EN				48 47.57	125 16.00							
16	LD01	0410	BE	ROS	US	27	49° 00 08	125° 43 81	37		149-152	4	H.M/L.P	✓	T: ? S: ?
		0411	BO				49° 00 07	125° 43 82		34					
		0415	EN				49° 00 06	125° 43 03							
16	LD02	0450	BE	ROS	US	28	48° 58 31	125° 46 98	45		153-157	5	H.M/L.P	✓	T: 10.02 S: 31.20
		0452	BO				48° 58 31	125° 46 99		40					
			EN												

Cast type:

BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:

US = up/stop
 UN = up/no stop
 DN = down/no stop

Time Code

BE = beginning time of cast
 BO = bottom time of cast
 EN = end time of cast

DE = deployment time
 MR = messenger release time
 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007				Ship TULLY				Cruise ID 2007-35			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	LD 03	0531	BE	CTD		29	48° 56.60	125° 50.36	48			✓	AM/LP	✓	T: 11.42 S: 30.23
		0533	BO				48° 56.60	125° 50.37		45					
		0534	EN				48° 56.60	125° 50.37							
16	LD 04	0621	BE	ROS	US	30	48° 53.12	125° 56.93	66		158-163	6	AM/LP	✓	T: 11.18 S: 30.57
		0622	BO				48° 53.13	125° 56.94		60					
		06	EN				48° 53	125°							
16	LD 05	0713	BE	CTD		31	48 49.67	126 03.58	93			✓	JE/SR	✓	T: 10.9 S: 30.65
		0716	BO				48 49.63	126 03.55		88					
		0718	EN				48 49.62	126 03.53							
16	LD 06	0800	BE	ROS	US	32	48 46.16	126 10.13	140		164-171	8	JE/SR	✓	T: 10.9 S: 30.90
		0804	BO				48 46.13	126 10.10		132					
		0812	EN				48 46.04	126 10.09							
16	LD 07	0856	BE	ROS		33	48 42.65	126 16.77	468		172	1	JE/SR	✓	T: 11.2 S: 30.48
		0906	BO				48 42.64	126 16.81		460					Sal # 172 @ 460 m
		0912	EN				48 42.67	126 16.84							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 16

0750

- on station E01 for recovery
- rng = 132, 133
- moving away to position for release

- range 268 267 256

0803

- sent B538 "rec'd + exec'd" 318m

0804

- sighted on surface
- recovery, cleanup + set up for redeployment
- break for lunch

1259

- launched E01-RR in 101.65 m water
at position $49^{\circ}17.509'$ $125^{\circ}35.952'$

1310

- proceed to LG Line near shore for CTD's

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month			Year				Ship				Cruise ID				
MAY			2007				TULLY				2007-35				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
16	LD08	0956	BE	ROS	US	34	48 39.20	126 23.37	773		173 - 189	17	JE/SR	✓	T: 10.9 S: 30.66
		1008	BO				48 39.10	126 23.26		765					
		1031	EN				48 39.05	126 22.98							
16	LG01	2041	BE	ROS	US	35	49°20.538	126°35.176	54		190 - 194	5	DS/TJ	✓	Date came up wrong
		2047	EN				20.562	126°35.194		51					restarted
16	LG02	2115	BE	ROS	US	36	49°18.695	126°38.033	101			0			2 mab
		2119	BO	CTD			49°18.716	126°38.081		98					28 mab
		2121	EN				49°18.722	126°38.086							
16	LG03	2211	BE	ROS		37	49°15.080	126°43.547	123			0			7 mab
		2216	BO	CTD			49°15.082	126°43.589		115					
			EN												
16	LG04	2305	BE	ROS	US	38	49 11.28	126 49.34	146		195 - 203	9	JE/SR	✓	T: 10.1 S: 31.05
		2308	BO				49 11.29	126 49.33		139					
		2317	EN				49 11.30	126 49.32							
17	LG05	0005	BE	CTD	-	39	49 07.45	126 55.24	273			0	JE/SR	✓	T: 10.3 S: 31.21
		0011	BO				49 07.42	126 55.24		265					
		0016	EN				49 07.42	126 55.25							

Cast type:

BOT = bottle cast, no CTD
NET = net haul
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 17 0730 - 0800 - load + land UVic people Jeff + Emmett and equipment
by rubber boat to Port Alberni

1100 - rubber boat is back with Randy Sanderson

- dropping off Life Boat Station crew member who came to visit.

app. 1130 - head for LD line CTDs offshore

1730 - 1930 - completed acoustic release tests on CTD cast at LD09
- see separate notes

1930 - continue with CTDs on LD + LC + LB offshore stations

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007				Ship TULLY				Cruise ID 2007-35			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
17	LG06	0059	BE	ROS	US	40	49 05.06	126 58.92	620		204-219	16	SR/JE	✓	T: 10.4 S: 31.21
		0110	BO				49 05.01	126 58.92		610					station displaced to
		0132	EN				49 04.90	126 58.94							avoid firing area.
17	LG07	0250	BE	ROS		41	48 59.38	127 07.11	1762		220	1	SR/JE	✓	T: 10.4 S: 32.00
		0320	BO				48° 59.42	127° 07.19		1750			HM/L.P		SAL @ 1750 m
		0348	EN				48° 59.41	127° 07.18							
17	LG 08	0445	BE	ROS		42	48° 54.95	127° 13.34	2067		221	1	HM/L.P		T: 10.83 S: 31.91
		0519	BO				48° 55.00	127° 13.57		2050					SAL @ 2050 m
		0552	EN				48° 55.115	127° 13.674							
18	LD09	0041	BE	CTD		43	48 35.61	126 29.90	1072			0	JE/SR	✓	T: 12.1 S: 30.98
		0102	BO				48 35.64	126 30.06		1060					releases on rosette.
		0106	Rtst												start testing releases
		0207	Rtend												end testing releases
		0221	EN				48 35.65	126 30.24							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time

MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>May</u>				Year <u>2007</u>			Ship <u>Tully</u>				Cruise ID <u>2007-35</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	LD10	0309	BE	ROS	US	44	48° 32.17	126° 36.61	1475		222-241	20	HM/LA	✓	T: 11.58 S: 30.81
		0333	BO				48° 32.23	126° 36.63		1450					
		0411	EN				48° 32.37	126° 36.39							
18	LD 11	0502	BO	ROS		45	48° 28.77	126° 42.98	1588		242	1	HM/LA	✓	T: 11.71 S: 31.39
		0529	BO				48° 28.72	126° 43.01		1551					SAL @ 1551 m
		0554	EN				48° 28.721	126° 42.944							
18	LC 11	0735	BO	ROS	U.S	46	48° 18.95	126° 26.73	1459		243-262	20	JE/SR	✓	T: 11.92 S: 30.52
		0759	BO				48° 18.95	126° 26.71		1455					altimeter did not
		0837	EN				48° 18.98	126° 26.68							work-used sounder/pinger
18	LC10	0926	BE	ROS		47	48° 22.44	126° 20.20	1246		263	1	JE/SR	✓	T: 11.19 S: 30.59
		0948	BO				48° 22.53	126° 20.16		1230					sal @ 1230 m
		1005	EN				48° 22.48	126° 20.00							no altimeter reading at 20m above bottom
18	LB15	2328	BE	ROS	US	48	48° 04.34	126° 08.52	1557		264-283	20	JE/SR	✓	T: 11.47 S: 31.54
18		2357	BO				48° 04.29	126° 08.43							which went down instead of up at bottom of cast
19		0043	EN				48° 04.23	126° 08.66							- dist of bot = 2m

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 18 0730 - on station A1 setting up mooring for deployment.

0957 - deployed A1-RR $48^{\circ}31.774'$ $126^{\circ}12.195'$ May 18
in 500 m of water

- mooring length increased by 1 m with addition of
SBE37 frame as compared to mounting SBE37 on ADCP frame

- set up for deployment of PATC

1259 - deployed PATC - E $48^{\circ}32.070'$ $126^{\circ}12.402'$
in 501 m depth.

- mooring length increased app. 75m with addition of Witness Buoy.

- heave compensator was making scraping sounds on port ram and
sticking. Compensator was lubricated and a fitting suspected of leaking
was tightened.

app. 1330 - head for CTDs on LB line ETA app. 1600 hrs.

1700

- bottom finding pinger shows up on sonar as a series of broken lines

- distance off bottom is constant, but display shifts

- changing ping interval under File $\rightarrow$ Operation help - good value is 1.00535 why?

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007			Ship TULLY				Cruise ID 2007-35				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	LB 13	0157	BE	ROS		49	48° 10.64	125° 56.00	911		284	1	Jc/SR	✓	T: 11.57 S: 30.98
		0213	BO				48° 10.62	125° 56.11		890					Sal 38.90 m
		0228	EN				48° 10.60	125° 56.13							Altimeter did not work
19	LB 11	0327	BE	ROS	U.S.	50	48° 15.24	125° 47.70	206		285-296	12	H.M/LP	✓	T: 11.77 S: 30.57
		0331	BO				48° 15.22	125° 47.71		195					ALTIMETER WORKED FROM
		0344	EN				48° 15.20	125° 47.78							60m OUT TO BOTTOM
19	LB 10	0433	BE	CTD		51	48° 18.52	125° 41.30	153				H.M/LA	✓	T: 11.45 S: 30.49
		0436	BO				48° 18.51	125° 41.31		145					ALT. WORKED FROM 70m
		0439	EN				48° 18.48	125° 41.33							OUT TO BOTTOM
19	LB 9	0526	BE	ROS		52	48° 21.98	125° 34.69	151		297-305	9	H.M/LA	✓	T: 11.23 S: 30.64
		0529	BO				48° 21.96	125° 34.69		145					
		0538	EN				48° 21.89	125° 34.70							
19	LB 8	0628	BE	ROS		53	48° 25.00	125° 28.87	139		306-314	9	H.M/LP	✓	T: 11.29 S: 30.29
		0630	BO				48° 25.01	125° 28.89		130					
		0638	EN				48° 24.97	125° 28.88							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

LB13 - Slowed winch to 0.5m/s at 50m off bottom, but still no good trace from altimeter. It did not give a reading even when rosette was stopped 20m off bottom.

Pinger/sounder worked as one would expect - no weird dashed traces this time
Why?

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>MAY</u>				Year <u>2007</u>				Ship <u>TULLY</u>				Cruise ID <u>2007-35</u>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
19	LB07	0725	BE	CTD		54	48 28.03	125 22.09	161			0	JE/SR	✓	T 11.40 S: 30.19
		0730	BO				48 28.08	125 22.05		150					
		0733	EN				48 28.11	125 22.03							
19	LB06	0823	BE	ROS	US	55	48 32.21	125 15.63	116		315-322	8	JE/SR	✓	T 10.63 S: 30.64
		0832	BO				48 32.22	125 15.53		106					Winch creeping -
		0840	EN				48 32.20	125 15.49							engineers consult @
19	LB04	0926	BE	ROS	US	56	48 35.72	125 08.71	113		323-329	7	JE/SR	✓	surface start but no adjustment
		0929	BO				48 35.75	125 08.67		105					T: 10.46 S: 30.95
		0935	EN				48 35.80	125 08.61							
19	LB02	1018	BE	CTD		57	48 39.02	125 02.39	58			0	JE/SR	✓	T: 9.87 S: 31.32
		1020	BO				48 39.02	125 02.36		50					
		1021	EN				48 39.02	125 02.34							
19	LB01	1045	BE	ROS		58	48 40.39	124 59.51	37		330-333	4	JE/SR	✓	T: 9.74 S: 31.35
		1049	EN				48 40.40	124 59.47		31					

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 19 0730 - on station JF2C for deployment.
- setting up.

0921 - deployed JF2C-J $48^{\circ} 21.456'$ $124^{\circ} 12.800'$
in 185 m water. on sounder.

- head for JF2E - setting up en route.

1051 - deployed JF2E-J $48^{\circ} 15.161'$ $124^{\circ} 09.781'$
in 149 m on sounder.

- head for JFG line CTDs

- centre line CTD winch needs brake adjustment

- heave compensator port side ram still sticky and noisy.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>MAY</u>				Year <u>2007</u>			Ship <u>TULLY</u>				Cruise ID <u>2007-35</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	JFG1	2106	BE	CTD		59	48°34.045	124°40.004	50		—		TS/DS		T: S:
		2109	BO				037	015		45					Big Swell Running
		2110	EN				48°34.034	124°40.019							2 mab
19	JFG2	2139	BE	CTD		60	48°32.290	124°39.971	141		—				
		2142	BO							137					
		2145	EN				48°32.272	124°40.018							
19	JFG3	2210	BE	CTD		61	48°30.338	124°39.950	238		—				
		2216	BO				48°30.331	124°39.965		230					7 mab
		2219	EN				48°30.330	124°39.952							
	JFG4	2241	BE	CTD		62	48°28.422	124°39.962	255		—				7 mab
		2249	BO				48°28.393	124°39.956		246					big wireangle
		2254	EN				48°28.380	124°39.947							
19	JFG5	2322	BE	CTD		63	48°26.18	124°39.93	185		—		JE/SR	✓	T: 9.69 S: 31.30
		2327	BO				48°26.20	124°39.95		175					
		2331	EN				48°26.19	124°39.97							
20	JFG6	0004	BE	CTD		64	48°24.40	124°39.88	76		—		JE/SR	✓	T: 8.30 S: 32.72
		0007	BO				48°24.40	124°39.88		66					
		0009	EN				48°24.41	124°39.88							

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION															
DAILY LOG				Year				Ship				Cruise ID			
Month MAY				2007				TULLY				2007-35			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	JFE7	0155	BE	CTD	-	65	48 16.73	124 17.37	68			0	JE/SR	✓	T: 8.75 S: 32.11
		0158	EN				48 16.73	124 17.37		63 ⁽⁺⁷⁾					
20	JFE6	0218	BE	CTD	-	66	48 18.15	124 16.63	170			0	JE/SR	✓	T: 9.48 S: 31.52
		0224	EN				48 18.15	124 16.63		159 ⁽⁺¹⁰⁾					
20	JFE5	0245	BE	CTD	-	67	48 19.74	124 15.85	208			0	JE/SR	✓	T: 9.54 S: 31.49
		0252	EN				48 19.74	124 15.87		199 ⁽⁺¹¹⁾					
20	JFE4	0313	BE	CTD	-	68	48° 21.22	124° 14.95	225			0	HM/LA	✓	T: 9.41 S: 31.57
		0321	EN				48 21.20	124 14.96		215 ⁽⁺⁹⁾					
20	JFE3	0340	BE	CTD	-	69	48° 22.67	124° 14.10	190			0	HM/LA	✓	T: 9.01 S: 31.61
		0347	EN				48° 22.67	124° 14.10		180 ⁽⁺⁸⁾					
20	JFE2	0408	BE	CTD	-	70	48° 24.24	124° 13.36	169 ⁽⁺⁷⁾			0	HM/LA	✓	T: 8.97 S: 31.66
		0414	EN				48° 24.24	124° 13.37		160 ⁽⁺⁷⁾					

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time
MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007				Ship TULLY				Cruise ID 2007-35			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	JFE 1	0434	BE	CTD		71	48° 25.02	124° 11.94	112		—		HM/LP	✓	T: 9.12 S: 31.64
		0438	EN				48° 25.03	124° 11.95		105(+7)					
20	JFD 1	0555	BE	CTD		72	48° 21.49	124° 57.54	120				HM/LP	✓	T: 9.16 S: 31.56
		0559	EN				48° 21.51	124° 57.51		110(+7)	—				
20	JFD 2	0621	BE	CTD		73	48° 20.75	123° 58.49	138				HM/LP	✓	T: 9.29 S: 31.49
		0627	EN				48° 20.77	123° 58.57		130(+8)					*
20	JFD 3	0649	BE	CTD		74	48° 19.23	123° 59.15	175				HM/LP	✓	T: ? S: ?
		0655	EN				48° 19.17	123° 59.13		165(+8)					
20	JFD 4	0716	BE	CTD		75	48° 17.69	124° 00.01	190				HM/LP	✓	T: 8.74 S: 31.67
		0722	EN				48° 17.67	124° 00.01		180(+9)					
20	JFD 5	0742	BE	CTD		76	48° 16.30	124° 00.79	183				HM/LP	✓	T: 8.98 S: 31.59
		0748	EN				48° 16.30	124° 00.80		170(+12)					

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time

MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

* — AT START, WINCHMAN BOUGHT ROSETTE UP OUT OF WATER INSTEAD OF DOWN — NO RESTART, JUST CARRIED ON

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MAY				Year 2007			Ship TULLY			Cruise ID 2007-35					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	JFD 6	0812	BE	CTD		77	48° 14.34	124° 01.59	145		—		HM/LA	✓	T: 8.88 S: 31.82
		0817	EN				48° 14.34	124° 02.00		135(+7)					
20	JFD 7	0842	BE	CTD		78	48° 12.20	124° 02.43	90		—		HM/LA	✓	T: 8.91 S: 31.88
		0845	EN				48° 12.20	124° 02.44		70(+8)					
20	JFA 5	1207	BE	CTD		79	48 11.89	123 19.92	95		—		JE/SR	✓	T: 8.70 S: 31.51
		1212	EN				48 11.92	123 19.92		85(+9)					
20	JFA 3	1252	BE	CTD		80	48 17.27	123 20.02	97		—		JE/SR	✓	T: 8.69 S: 31.44
		1256	EN				48 17.26	123 20.02		87(+10)					
20	JFA 1	1335	BE	CTD		81	48 22.80	123 20.02	109				JE/SR	✓	T: 8.99 S: 31.09
		1339	EN				48 22.80	123 19.99		100(+8)					

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop
MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

DE = deployment time

MR = messenger release time
RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Date Time (PDT)

May 20

0730

- on station AS04 setting up.

0840

- deployed mooring AS04 - H 116 m on sounder
at $48^{\circ}18.009'$ $123^{\circ}22.549'$

- lifting bail on 5537 M246 has cracked weld - replace

- the Argos 7363 is a duplicate + has to be replaced.

- head for I.O.S.

1400

- arrive I.O.S. off loading till app. 1700.