DAILY LOG BOOK

MISSION NUMBER 2007 - 13

DATE: From: 30 MAY to: 19 JUNE 2007

VESSEL: JP Tully

PROJECT: Line P

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

Captain: SYD WEBB First Officer: SIMON DOCKERILL
Second Officer: PETER VISSER Third Officer: MARK

Mission Participants / Agencies:

Scientific Personnel: Party Chief: Marie Robert 0800-1600, 2000-2400

Name	Watch	Cabin	Name	Watch	Cabin
JANET BARWELL-CLARKE	NUTS	B	STEVE EMERSON	1200-1600	G
ANISSA MERZOUK	0800-0400	C	REYNA JENKYNS	4-8	H
SHANI ROUSSEAU	4-8	C	MARIA KAVANAUGH	8-12	H
KEVIN BARTLETT	8-12	D	MIKE ARYCHUK	DMS	4
CHRIS MACKAY	8-12	D	DOUG ANDERSON	0400-0800, 1600-2000	Up P
MARTINE LIZOTTE	—	E	MIKE BENTLEY	—	Up S
SARAH-JEANNE ROYER	—	E			
PATRICK A'HEARN	12-4	F			
DAVID ZIMMERMAN	12-4	F			
ERIC KUNZE	4-8	G			

Second leg of Mission: Party Chief:

Name	Watch	Cabin	Name	Watch	Cabin

Data logging computer: HP Compaq #2
Data acquisition program: Seasave Win32 5.37m
CTD deck unit make: Seabird model: 11plus serial number: 04424

Primary CTD
Make: Seabird model: 9 11plus serial number:
Primary temperature serial number: 2968
Primary conductivity serial number: 1766
Secondary temperature serial number: 2374
Secondary conductivity serial number: 1729
Transmissometer: Wetlabs Model: CSTAR s/n:
Fluorometer: Model Seapoint Cable gain: s/n: 2845 **P**, (**S**) or **NO** pump?
Oxygen sensor: Seabird Model: 043 s/n: 1117 (**P**), **S** or **NO** pump?
PAR sensor: Model: s/n:
Other sensors: Benthos altimeter s/n: 1252 **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?

Secondary CTD
Make: model: serial number:
Primary temperature serial number:
Primary conductivity serial number:
Secondary temperature serial number:
Secondary conductivity serial number:
Transmissometer: Model: s/n:
Fluorometer: Model Cable gain: s/n: **P, S** or **NO** pump?
Oxygen sensor: Model: s/n: **P, S** or **NO** pump?
PAR sensor: Model: s/n:
Other sensors: s/n: **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?
Other sensors: s/n: **P, S** or **NO** pump?

CTD calibration bottle location (height above CTD in metres):

Rosette Setup:

Number of bottles: _____
Manufacturer: _____
Volume of Bottles (litres): _____

Winches:

1. Make: _____ Model: _____ Serial #: _____ used for: _____
2. Make: _____ Model: _____ Serial #: _____ used for: _____
3. Make: _____ Model: _____ Serial #: _____ used for: _____

Comments on performance during cruise:

Salinometer:

Make: _____ Model: _____ Serial #: _____

Comments on performance during cruise:

Oxygen Kit # ☐

Comments on performance of kit and chemicals:

Thermosalinograph System:

Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____

Comments on performance during cruise:

ADCP Setup:

Computer time zone: _____ **User Exits:** Name: _____ Exit Points: _____
Sampling interval (seconds): _____ Name: _____ Exit Points: _____
Bin Length (2^x): _____ Name: _____ Exit Points: _____
Pulse Length: _____
Buffer (bytes): _____ **Work File:** _____
Gyro Offset: _____

Comments:

CTD Test Cast Information

Test Cast at IOS Jetty? (optional) yes ☐ no ☑

Comments: (i.e. how did everything work??)

Test cast in Saanich Inlet? (recommended) yes ☑ no ☐
If no, give reason: _____

Comments: (i.e. how did everything work??) GOOD

CTD pressure reading on deck (db): _____
(Should be 0.0 db ± 0.5)

Pumps working? yes ☑ no ☐ problems, see notes.
(i.e.. Was the red LED display on the deck unit 0011 and not still 0010?)

Secondary Temp- Primary Temp: _____
(Average from the Mixed Region)

Secondary Salinity- Primary Salinity: _____
(Average from the Mixed Region)

Additional Comments:

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month May / JUNE **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 pl.

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
30	SI03	2136	BE	ROS		1	48 35 51	123 30.02	224						UBC samples
		2142	BO				48 35 46	123 30 01		200	1-24	24			
		2204	EN				48 35 48	123 30 00							
30	SI03	2216	MR	Go-Flo		2	48 35 38	123 30 04	224	10					
31	JF1	0020	BE	USW			48 15 96	123 30 23	150				DA		Loop sal, nut, chl
31	JF2	0237	BE	USW			48 17 99	124 00 00	188				DA		LOOP
1	JF3	0448	BE	USW			48 26.97	124 30 00	224				MR		LOOP SAL, CHL, NUT
1	JF4	0645	BE	USW			48 32.22	124.59.00	48				MR/DA		" " "
1	P1	0901	BE	ROS		3	48 34 51	125 29 97	114						
		0905	BO				48 34 51	125 29 94		105	25-28	3		✓	
		0912	EN				48 34 51	125 29 92							
1	P1	0925		CO/FLO		4	48 34 52	125 29 98	10m						
1	P2	1145	BE	ROS		5	48 35 98	126 00 07	118					✓	
		1147	BO				48 35 98	126 00 05		110	29-36	8			
		1157	EN				48 35 98	126 00 04							
1	P2	1219	BE	NET		6	48 35 98	126 00 03							
		1228	BO				48 36 00	126 00 00							
		1237	EN				48 36 00	126 00 01							

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
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RE = recover mooring time

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

Leave Esquimalt DND fuelling dock @ 1600, 31 may, local time.

DAILY LOG

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Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 P2

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
1	P3	1407	BE	ROS		7	48 37 52	126 20 10	818				DA+		ERROR LIGHT AT 350
		1419	BO				48 37 56	126 20 13		800	not used 37	1		✓	Transmissometer spike at
		1431	EN				48 37 58	126 20 14							No bell
1	P4	1613	BE	ROS	US	8	48 38.99	126 40.01	1320				MR+	✓	Deep cast
		1630	BO				48 39.03	126 39.94		1305	38-61	24			1 TRANS. SPIKE N 150'S
		1707	EN				48 39.10	126 39.97							
1	P4	1731	BE	NET		9	48.39.04	126 39.95	1320				MR+		250 m Bongo
		1738	BO				48.39.07	126.39.94		250					
		1741	EN				48.39.07	126.39.94							
1	P4	1752	MR	Go-Flo		10	48 39.05	126 39.96	1320	10					Go-Flo to 10
1	P4	1825	BE	ROS	US	11	48 39.06	126 39.91	1320						
		1830	BO				48 39.04	126 39.91		300	62-76	15			PAR ON
		1845	EN				48 38.99	126 39.89							
1	P5	2103	BE	ROS	US	12	48 41.56	127 09.96	2086					✓	PAR OFF
		2137	BO				48 41 46	127 09.90		2005	77	1			
		2200	EN				48 41.53	127 10.21							
2	P6	0017	BE	ROS		13	48 44.66	127 39.93	2547		78	1	DA+	✓	TRANS CABLE NEEDS ATTENTION
		0046	BO				48 44 63	127 39 68		2005					⇒
		0112	EN				48 44 49	127 39 76							

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Transmissometer cable → checked connecter and it looks fine.
Re-greased & cleaned & reconnected. Next step → change Oxy / trans Y cable (watch this space.
Doug.

T° ≠ 700 - 1300 m

DAILY LOG

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Month JUNE **Year** 2007 **Ship** TULLY **Cruise ID** 2007-13 p3

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
2	P7	0332	BE	ROS	US	14	48°46.64	128°10.13	2507				MR+		
		0359	BO				48°46.63	128°10.43		2005	79	1			
		0425	EN				48°46.43	128°10.85							
2	P8	0634	MR	BOT		15	48°48.96	128°40.05	2521	10	(*100)	1			Go fire to 10 m
2	P8	0643	BE	NET		16	48.48.89	128.40.14	2521	350					
		0652	BO	(30)			48.48.82	128.40.33		~~250~~					
		0700	EN				48.48.83	128.40.41							
2	P8	0714	BE	ROS		17	48.48.87	128.40.43	252.		80-102	23	DA+	✓	
		0739	BO				48 48 92	128 40 42		2005					
		0825	EN				48 49 04	128 40 39							
2	P9	1036	BE	ROS		18	48 51 40	129 09 98	2355					✓	
		1100	BO				48 51 45	129 09 96		2005	103	1	DA+		
		1124	EN				48 51 45	129 09 81							
2	P10	1341	BE	ROS		19	48 53 56	129 39 91	2642						
		1404	BO				48 53 49	129 39 85		2005	~~104~~	✓	DA+	✓	No bottle tripped.
		1427	EN				48 53 41	129 39 77							
2	P11	1644	BE	ROS		20	48 55 99	130 09 98	2752					✓	
		1710	BO				48 56 02	130 09 94			104	1	MR+		+LOOP @ end of cast
		1735	EN				48 56 02	130 09 98							+LOOP P11 B enroute

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

→ Rosette out, then back to 5m.

DAILY LOG

Ocean Sciences and Productivity Division

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Month JUNE **Year** 2007 **Ship** J.P. TULLY **Cruise ID** 2007-13 p 4

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
2	(P11 B)	1749	BE	USW		~	48 52.13	130 12.21							LOOP P11 B
2	P12	1947	BE	ROS	US	21	48 58.17	130 40.33	3233				MR+	✓	PAR ON
		1953	BO				48 58.19	130 40.36		300	105-119	15			
		2009	EN				48 58.22	130 40.52							
2	P12	2058	BE	ROS	US	22	48 58.20	130 40.13	3233				MR+	✓	PAR OFF UBC/UL AUAL
		2133	BO				48 58.66	130 39.91			120-128	9			FUZZY SAL SIGNAL >400m
		2207	EN				48 58.69	130 39.59							
2	P12	2217	MR	BOT		23	48 58.66	130 39 51	3233	10	(128)	1			Go flo to 10m
2	P12	22:25	BE	NET		24	48 -58.64	130 - 39.43	3231						
		22:31	BO				48 - 58.62	130 - 39.39		250					
		22:35	EN				48 - 58.61	130 - 39.35							
2	P12	2301	BE	ROS		25	48 58 46	130 40 12	3229						No bottom detection
		23 46	BO				48 58 55	130 39 83		3230	129-151	23	DA+	✓	from sounder or altimeter.
3		0057	EN				48 58 91	130 39 10							
3	P13	0514	BE	ROS	US	26	49 02 71	131 39.97	3000				MR+	✓	
		0540	BO				49 02.62	131 39.88		2006	152	1			
		0606	EN				49 02.61	131 39.99							

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→ 10.4 lbs

DAILY LOG

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Month June				**Year** 2007				**Ship** Tully				**Cruise ID** 2007-13 P5			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
3	P14	1007	BE	ROS		27	49 07 43	132 40 02	3310						
		1032	BO				49 07 41	132 39 91		2005	153-156	4	DA+	✓	
		1057	EN				49 07 40	132 39 95							
3	P14	1112	BO	GO-FLO		28	49 07 40	132 39 94	3310			1	DA+		
		1117	BO	GO-FLO		28	49 07 41	132 39 95							
3	P15	1527	BE	ROS	US	29	49 12.01	133 39.98	3387				MR+	✓	LARGE SWELL
		1552	BO				49°12.00	133° 39.96		2005	157	1			winds ~ 30k
		1616	EN				49.12 00	133 39 91							
3	P16	2033	BE	ROS	US	30	49°17.19	134 40.44	3615				MR+	✓	PAR ON
		2039	BO				49° 17.23	134 40.52		300	158-174	17			VERY BIG SWELL
		2054	EN				49 17.14	134 40.28							PAR OFF
3	P16	2125	MR	BOT		31	49.17.05	134 40.19	3615	10					Go-flo LID
3	P16	2306	BE	ROS		32	49 17 05	134 40 19	3615						UBC cast p[illegible]
		2332	BO				49 16 80	134 40 37			175-182	8	DA+	✓	SWELLS Building [illegible] WIND [illegible]
4		0003	EN				49 16 77	134 40 38							Temp drift as w[illegible] →
4	P16	0044	BE	ROS		33	49 16 75	134 40 49	3615						
		0142	BO				49 16 76	134 40 42		3660	175-198	24	DA		
		0256	EN				49 16	134 40							

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p5.5

Salinity & temp all again at ~ 1700 m, then "troubles" continue. "Cond cable? → PRI? Will swap pri pump for another. PRI Temp cable?

SWAPPED PRI PUMP, Checked & re-greased pri temp & cond connectors.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JUNE **Year** 2007 **Ship** TULLY **Cruise ID** 2007-13 P6

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
4	P26	0306	BE	BONGO		34	49°16.73	134°40.40	3615						
		0313	BO				49°16.75	134°40.43		250					
		0318	EN				49°16.73	134°40.47							
4	P17	0738	BE	ROS		35	49 21 05	135 39 98	3380						CHL SAMPLES @ 1950 UTC!
		0803	BO				49 20 97	135 40 08		2004	199	1	DA+	✓	
		0825	EN				49 20 96	135 40 08							
4	P18	1248	BE	ROS		36	49 25 99	135 39 95	3818						
		1311	BO				49 25 99	136 39 95		2005	200-203	4	DA+	✓	
		1335	EN				49 25 98	136 40 01							
4	P18	1346	BO	BOT		37	49 25 93	136 40 02	3818			1	DA+		GO FLO
4	P19	1805	BE	ROS	US	38	49 30.02	137 39 99	3906				MR+	✓	
		1828	BO				49 30.01	137 39 96		2005	204	1			
		1850	EN				49 30.00	137 40.03							
4	P20	2333	BE	ROS		39	49 33 98	138 40 05	3945						PAR ON
		2340	BO				49 33 99	138 40 01		300	205-220	16	DA+	✓	
		2358	EN				49 33 99	138 39 93							
5	P20	0009		BOT		40	49 34.03	138 39.998							GO-FLO
															PAR OFF

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DAILY LOG

Ocean Sciences and Productivity Division

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Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 P7

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
5	P20	0046	BE	ROS		41	49 33.99	138 40.00	3943						
		0115	BO				49 33 92	138 40 01			221-228	8	DA+	✓	
		0145	EN				49 33 96	138 39 99							
5	P20	0204	BO	NET		42	49 34 01	138 39 99	3945	250					Bongo
5	P20	0230	BE	ROS		43	49 33 98	138 40 00	3945				DA+		
		0330	BO				49 33.75	138 40.21		4014	229-252	24	MR+		
		0432	EN				49 33.71	138 40.25							
5	P21	0853	BE	ROS		44	49 38 00	139 40 00	3938					✓	
		0918	BO				49 38 00	139 40 00		2005	253	1	DA+		
		0942	EN				49 37 98	139 39 96							
5	P22	1418	DE	ROS		45	49 41 97	140 40 16	4026						
		1442	BO				49 41 94	140 40 06		2005	254-257	4	DA+	✓	
		1506	EN				49 41 97	140 40 09							
5	P22	1516	MR	BOT		46	49 42.00	140 40 09	3889?	10		1	MR+		Go flo to 10
5	P23	1941	BE	ROS		47	49 46.03	141 40.02	4027				MR+	✓	2 bottles closed @ 2000 just to collect bulk water so no number.
		2008	BO				49 46 15	141 39 91		2005	258	1			
		2053	EN				49 46 08	141 39 53							+LOOP @ END
	P23B	2050	BE	USW		—	49 45 55	141 39 77							LOOP @ AFTER P23

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Daily_log_book.doc

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

Reboot server @ 1246 (1946) 5 June, P23.

Seems to work! ☺ hop~

Reboot again @ 14h15 local.

Once more @ 1810 local

DAILY LOG

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Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 P8

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
6	P24	0105	BE	ROS		48	49 50 20	142 39 96	3966						
		0137	BO				49 50 36	142 39 58			259 - 262	4	DA+		
		0201	EN				49 50 31	142 39 39							
	P24	0213	BO	BOT			49 50 21	142 39.01							Re-do
6	P24	0219	BE	BOT		49	49 50.20	142 38.84	"		263				
6	P25	0946	BE			50	49 59 92	143 36 29	3961		264	1	DA+		possible pump problems
		1005	BO				49 59 91	143 36 30							large sensor diff ⇒
		1027	EN				49 59 91	143 36 33							
6	P35	1407	BE	ROS		51	49 39 97	144 18 19	4125		265				changed pump cable
		1428	BO				50 00 03	144 18 17		2005		1	DA+	✓	
		1454	EN				50 00.03	144 18 16							
6	~P26 Mooring	2036	BE	MOR		52	50 07.7144	144 51.6060	4245						Deploy floatation
		22:3553	EN				50 06.8870	144 58.2440							Deploy anchor
7	P26	0237	BE	ROS		53	50 00 05	144 59 76	4215						PAR-ON
		0241	BO				50 00 05	144 59 80		200	266 - 273	8			
		0255	EN				50 00 02	144 59 91							
7	P26	0419	BE	VMP		54	49 59 93	145 00.07							Profiler UVIC
		0700	EN				49 58.79	145 01.98							

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large sensor difference. Recording pump or blockage? Sensors behave better at ~ 600m on upcast

Start getting ready for mooring deployment Wednesday 6 June
AM: Do a sounder line to determine position.

Launching orange ball: 50° 07.7144 144° 51.6060 13:36:30 Local

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 p9

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
7	P26	07:17	BE	ROS		55	49 58 77	145 2 01	4125						
		07:21	BO				49 58 77	145 02 03			274-281	8		✓	
		07:32	EN				49 58 74	145 02 04							
7	P26	0801	BE	NET		56	49 59 96	145 59 96	4125						
		0828	BO				49 59 96	145 00 03		1000					
		0850	EN				49 59 96	145 00 01							
7	P26	0906	BE	NET		57	49 59 96	145 00 01	4125						
			BO							250					
		0923	EN												
7	P26	1054	BE	ROS		58	50 00 01	144 59 99	4125						
		1058	BO				50 00 02	145 00 02		200	282-289	8		✓	Flo called 0059
		1109	EN				50 00 00	144 59 98							
7	P26	1130	BE	VMP		59	49 59.96	145 00 00							
		1453	EN				49 57.83	145 00.20							
7	P26	1506	BE	ROS		60	49 57.86	145 00.26	4265			8	MR+	✓	
		1511	BO				49 57.88	145 00.24		200	290-297				
		1520	EN				49 57.85	145 00.21							
7	~P26	1745	BE	MOR		61	50 11.08	144 50.91							
		2056					50 07 0693	44 50, 3887							Deploy buoy

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

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RE = recover mooring time

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

7 June 0930 local time: started file 0002 on TSG

Buoy Ps 50 09.08 144 49.92

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JUNE **Year** 2007 **Ship** TULLY **Cruise ID** 2007-13 p 10

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
7	MOORING/ P26	2226	BE	ROS		62	50 07.68	144 50.81	4235				MR+	✓	Mooring calib cast
		2234	BO				50 07 60	144 50.79		350	298-302	5			
		2242	EN				50 07 53	144 50.76							
8	P26	0432	BE	ROS	US	63	50 00.31	144 58.74	4222				MR+	✓	Before VMP sonict #2
		0437	BO				50 00.28	144 58.70		200	303-310	8			
		0447	EN				50 00 19	144 58.66							
8	P26	0509	BE	VMP		64	50 00.09	144 58.45	4220						
		0744	EN				49 59.05	145 00.20							
8	P26	0802	BE	ROS		65	49 59.03	145 00 21	4215						
		0806	BO				49 59 03	145 00 24		200	311-318	8	DA+	✓	
		0817	EN				49 59 01	145 00 15							
8	P26	1400	BE	ROS		66	50 00 02	145 00 07	4222						
		1405	BO				50 00 03	145 00 09			319 - 337	19	DA	✓	
		1425	EN				50 00 04	145 00 09							PAR OFF
8	P26	1740	BE	ROS	US	67	49 59.98	145 00.00	4222			13	MR+	✓	SPIKES IN TRANS. DOWN. CUPS ?? OR CABLE?
		1828	BO				49 59.88	144 59.97		4000	338-350				
		1929	EN				50 00.03	144 59.96							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JUNE **Year** 2007 **Ship** TULLY **Cruise ID** 2007-13 P 11

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
8	P26	2113	BE	ROS	US	68	50 00.03	144 59.81	4222				MR+	✓	PAR ON
		2119	BO				49 59.94	144 59.83		300	351-366	16			
		2134	EN				49 59.88	144 59.99							
8	P26	2147	MR	BOT		69	49° 59.97	145° 00.13	4222	10					Go-Flo to 10m.
9	P26	0108	BE	ROS	US	70	49 59 97	144 59 91	4212						
		0203	BO				49 59 99	144 59 43		4290	367-390	24	DA+	✓	moved altimeter ⇒
		0320	EN				50 00.13	145 00.16							Transmissometer spike at 3000m ↓
9	P26	0506	BE	ROS	US	71	50 00 03	145 00 14	4222				MR+	✓	Trans spikes at 4000
		0511	BO				49 59.99	145 00 21		300	391-404	14			PAR ON
		0526	EN				50 00.11	145 00 32							SPIKE x @ 200 ↓ →
9	P26	1034	BE	ROS	US	72	50 00 02	145 00 01	4221						
		1038	BO				50 00 00	145 00 05		200	405-412	8	DA+	✓	Changed trans ok Y cable.
		1048	EN				50 00 02	145 00 01							
9	P26	1100	BE	VMP		73	50 00.02	145 00.03							
		1438	EN				50 02.2	145 01.8							
9	P26	1451	BE	ROS	US	74	50 02.25	145 01.84	4221				DA+ MR+	✓	
		1455	BO				50 02 25	145 01 84		200	413-420	8			
		1505	EN				50 02.25	145 01.83							
															PAR OFF

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P11 5

Moved altimeter to the other side of the rosette in an attempt to get better bottom detection. (1) Doug

Totally lost transmissometer 235 to 250 ↓

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JUNE | **Year** 2007 | **Ship** TULLY | **Cruise ID** 2007-13 PI2

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
10	PIE 93	1152	BE	ROS		75	46 59 95	144 40 19							
		1248	BO				46 59 98	144 40 15	4644	4760	421-444	24	DA+	✓	
		1421	EN				47 00.04	144 40 19							
10	S5	1828	BE	ROS		76	47 30.00	144 59.97	4604				MR+	✓	
		1931	BO				47.29.99	144 59.989		4710	445	1	MA+		
		2021	EN				47 29.962	144 59.952							5m Niskin
~~10~~ 11	S4	0012	BE	ROS		77	47 59 94	144 59 93	4467						
		0114	BO				47 59 91	145 00 01		4575	446-469	24	DA+	✓	
		0233	EN				47 59 70	145 00 48							
11	South 53	0457	BE	ROS		78	48 20. 54	144 59 38	4340				MR+	✓	PAR ON
		0502	BO				48 20 52	144 59.39		200	470-477	8			
		0511	EN				48 20.42	144 59.19							
11	South 53	0521	BE	VMP		79	48 20.5	144 58.9							SUNSET #3
		0757	EN				48 23.35	144 59.92							
11	South 53	0807	BE	ROS		80	48 23 36	144 59 79	4340						
		0911	BO				48 23 34	144 59 75			478-485	8	DA+	✓	
		0820	EN				48 23 32	144 59 61							

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4333

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 P13

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
11	South S3	1034	BE	ROS		81	48 23 38	144 59 91	4382						Before sunrise
		1038	BO				48 23 37	144 59 90			486-493	8	DA+	✓	
		1047	EN				48 23 35	144 59 92							
11	South S3	1057	BE	VMP		82	48 23.37	144 59.96							
		1431	EN				48 26.68	145 00.2							
11	South S3	1443	BE	ROS		83	48 26 64	145 00 11	4374						After sunrise
		1447	BO				48 26 61	145 00 09		200	494-501	8	DA+	–	
		1457	EN				48 26 56	145 00 03							PAR OFF
11	S3	1533	BE	ROS	US	84	48 29.98	145 00 02	4337						+LOOP @ END OF CAST
		1627	BO				48 30.02	145 00 16		4430	502-525	24	MR+	X	CALIBRATION CAST 3000 m
		1730	EN				48 29.98	144 59.99							
11	S3B	1757	BE	USW	–	–	48 32.08	144.59.93			S3B				9.6 kts.
11	S2	20:50	BE	ROS		85	49 0.036	145 0.101	4333		526-549	24	MA	✓	
		21:51	BO				48 59.995	144 59.982		4424					
		22:09	BE			86	48 59.992	144 59.995							⟩⟩
		2315	EN				49 00 20	144 59 02							
12	S1	2:34	BE	ROS		87	49 30.02	144 59 93	4222						
		0330	BO				49 29.94	145 00.06		4325	550	1	DA+	✓	
		0423	EN				49 29.96	145 00.11							

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Daily_log_book.doc

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Bottles would not fire. Initially I thought I simply didn't fire bottle @ bottom but when @ 4000m the bottles still wouldn't fire a problem was confirmed. To solve the entire PC was shutdown & seasave started again. Cast # was changed to "86". It was unknown if Bottle 1 fired @ bottom but essentially we started all over again @ 4000m. If after rosette gets back on deck all bottles are tripped, sals will have to be taken on every niskin.

* 1st bottle at 4000, no bottom bottle. Bottle 24 left untripped.

Ver 7? , watch this space

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JUNE **Year** 2007 **Ship** TULLY **Cruise ID** 2007-13 P14

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
12	S1	0432	DE	DRF		88	49° 29.98	145° 00 34							Deploy Argo 3267
12	P41	1347	BE	ROS		89	50 27 05	145 00 08	4434		551	1			+LOOP @ END OF CAST
		1433	BO				50 27 23	145 00 07		4320			DA+	✓	
		1526	EN				50 27.21	145 00.07							
12	P41B	1535	BE	USW		—	50 27.73	145 00 14	4223						9.7 kts
12	P32	1823	BE	ROS	US	90	50 54 01	145 00.02	4229				MR+	✓	
		1915	BO				50 54.01	145 0.006		4322	552-575	24	MA+		
		2024	EN				50 54.01	145 0.01							
12	Z1	2341	BE	ROS		91	51 20 94	145 00 05	4222						
		0031	BO				51 20 99	144 59 99		3970	576	1	DA+	✓	
13		0112	EN				51 20 98	144 59 98							
12	Z2	0406	BE	ROS	US	92	51 47.62	145 00.02	3781				MR+	✓	
		0500	BO				51 47 49	144 59.98		3844	577-599	23			
		0607	EN				51 47 50	145 00.00							
13 12	Z3	0853	BE	ROS	US	93	52 12 02	144 57 98	4044						
		0941	BO				52 11 99	144 59 94		4125	600	1	DA+	✓	
		1039	EN				52 12 02	144 59 98							

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P14.5

Spend time between Argo and P41 locating the acoustic release of the sub-surface mooring

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007-13 pIS

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
13/12	Z4	1339	BE	ROS	US	94	52 39 02	145 00 08	4035						
		1422	BO				52 38 98	1414 59 97		4120	601-623	23	DA+	✓	
		1545	EN				52 38.97	145 00.01							
12/13	Z5	1836	BE	ROS	US	95	53 06.03	145 00 02	4058				MR+	✓	
		1929	BO				53 5.981	144 59.971		4150	624	1	MA		
		2020	EN				53 6.286	145 0.766							
13	Z6	2304	BE	ROS		96	53 33 04	145 00 03	4029					✓	Seasave stopped acquisition on the upcast
		0001	BO				53 33 84	145 00 49		4110	625-647	23	DA+	—	FLAT, CALM at ~3600
14		0013	EN				53 33 84	145 00 4 ??							Blew fuse on deck unit.
12	Z6	0027	BE	ROS		97	53 32 86	145 00 41	0027						
14		0112	EN				53 33 11	145 00 85							
12	Z6	0115	BE	ROS	US	98	53 33 11	145 0085	4110						
		0214	BO				53 33 44	145 01 40		4107	625-647	23	DA+	✓	
		0320	EN				53 33.47	145 02.01							
14	Z7	0612	BE	ROS	US	99	53 59 89	144 59 93	3995				MR+		2 bottles closed @ 3000m for bulk water. No S/N
		0710	BO				53 59 96	145 00 13		4075	648	1		✓	
		0818	EN				53 59 99	145 00 10							

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26:

Cast 96 → downcast ! bottle tripped at bottom, emptied at ≈ 3700 m upcast.

Cast 97 → down to 3700 again → on the upcast the rosette isn't giving bottle confirmations so the rosette is sent to the surface. I believe the rosette setting reverted back to GO 1015 and wasn't reset => REDO

27: Seasave did not start properly, so I re-booted the computer to be on the safe side. Then ship repositioned for a few minutes with rosette @ surface HR

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2007 **Ship** Tully **Cruise ID** 2007 p16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
14	Z8	1107	BE	ROS		100	54 26.97	144 59.96	4081						
		1155	BO				54 27 02	145 00 05		4169	649-671	23	PA+	✓	
		1314	EN				54 26 98	144 59 99							
14	Loop 1	1942	BE	USW	–	–	54 27.73	143 19.15	3890		Loop 1				
15	Loop 2	0048	BE	USW	–		54 24.98	142 03 04	3689		Loop 2				
15	Loop 3	0803	BE	USW	–	–	54 25 40	140 16 67	3407		Loop 3				
15	Loop 4	1213	BE	USW	–		54 23 84	139 16 50	3218		Loop 4				
15	Loop 5	15:00	BE	USW	–		54 22.44	138 34.77	3241		Loop 5		MA		
15	Loop 6	18:55	BE	USW	–		54 21.38	137 39.17	3006		Loop 6		MA		
16	Loop 7	0057	BE	USW	–		54 21.24	136 06.25	2840		Loop 7				
16	Loop 8	0758	BE	USW	–		54 19 33	134 14 00			Loop 8				
16	Loop 9	1200	BE	USW	–		54 18 71	133 06 98	466		Loop 9				
17	Loop 10	0704	BE	USW	–		54 17 43	132 05 92	217		Loop 10				

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