DAILY LOG BOOK

MISSION NUMBER 2004-24

DATE: From: 11 August to: 19 August 2004

VESSEL: John P Tully

PROJECT: C^2BC^2

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

Captain: Bill Noon First Officer: Garry MacDonell
Second Officer: Shane Lovelace Third Officer: Tom Moxley

Mission Participants / Agencies: IOS, UBC, UVic, UofA

Scientific Personnel: Party Chief: Debby Ianson, 4-8 G

Name	Watch	Cabin	Name	Watch	Cabin
Kristina Brown		A	Marina Chong		H
Jennifer Jackson		B	Miranda Corkum		H
Lindsay Richer		A	Doug Anglerion		
Melissa Hennekes		B	Darren Tuele		
Rana El-Sabaawi		C			
Nina Nemcek		C			
Marie Robert		D			
Diana Varela		E			
Jay Cullen		F			
Paul Myers		F			

Second leg of Mission: Party Chief: _____

Name	Watch	Cabin	Name	Watch	Cabin

Data logging computer: FSO3- Shuttle Case
Data acquisition program: Seasave Win 32 Ver 5.31a
CTD deck unit make: Seabird model: 11plus serial number: 0508

Primary CTD

Make: Seabird model: 911 plus serial number: 0350
Primary temperature serial number: 2023
Primary conductivity serial number: 1763
Secondary temperature serial number: 2310
Secondary conductivity serial number: 2128
Transmissometer: Wetlabs Model: CSTAR s/n: 498DR
Fluorometer: Model Seapoint Cable gain: 10X s/n: 2356 **P**, **S** or **NO** pump?
Oxygen sensor: Seabird Model: 43 s/n: 0047 **P**, **S** or **NO** pump?
PAR sensor: Biospherical Model: QSP-200L s/n: 4615
Other sensors: Benthos Altimeter s/n: 1024 **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?
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CTD calibration bottle location (height above CTD in metres): _____

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Month AUGUST **Year** 2004 **Ship** JOHN P TULLY **Cruise ID** 2004-24

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	SI03	1825	BE	ROS		1	48 39.044	123 30.263	191						→
		1835	BO				48 39.05	123 30.25		99		Ø		✓	Clock wrong.
		1838	EN				48 39.05	123 30.24							
13	GB5	0221	BE	ROS		2	51 37.06	129 19.99	57						
		0229	BO				51 37.02	129 19.99		51	1-11	11			
		0231	EN				51 36.95	129 20.02							
13	GB4	0448	BE	ROS		3	51 27.03	129 46.94	190						
		0453	BO				51 27.04	129 46.92		180	12-20	9			
		0508	EN	NET			31 27.05	129 46.92							
13	GB4	04:?	BO	BOT		4	51.27.03	129 46.94	190	100	~				
		04:?	SU												
13	GB4	05:10	BE	BOT		5	51.27.03	129 40.94							
		05:40	EN				"	"	190	10		2			PAR SENSOR OFF
13	MB2	1153	BE	ROS		6	51 26.01	131 12.98	-2400					✓	Deep cast
		1239	BO				51 26.00	131 12.97		2000	21-34	14			→
		1311	EN				51 26.00	131 12.98							
13	MB2			NET		7	51 2600	131 12.93	2400	100	—	~	~		BONGO

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

Go down to 100 m to check CTD, close all bottles @ surface.
Clock ~ 6 min off ?

Note: when labelling 1000m bottles for morning station MB2, ones from today GB4/GB5 found in Box in lab (NOT cooler) moved to cooler at that time (7:55 on UDT - 19:55 on local)

Lost Primary T° and S @ ~ 220 dbar on the way down.
Slowed right down @ ~ 1000 dbar because altimeter was decreasing. Up ~ 10m then back down to 2000 dbar
Pri T° and S back @ 1880 ↓
Pri T + S good, SBE ↑
All primary plumbed sensors experienced the problem including oxygen
Likely cause is something sucked into the primary duct.

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13	MB2	1419	BE	ROS		8	51 26.00	131 13.06	~2400					✓	PAR ON
		1425	BO				51 25.95	131 13.09		150	35-47	13			
		1438	EN				51 25.98	131 12.99							
13	MB2	1440	BE	BOT		9	"	"							
		17:10	EN				"	"	2400	800		8			60-Flo 800, 700, 500, 250, 100, 50, 35, 10
															PAR OFF
13	MT2	1906	BE	ROS		10	51 34 051	130 56 062	2080						
			BO				5134 05_	130 55 912		200	48-59	12		✓	
			EN												
13	MT2	20:34	BE	BOT		11	"	"	2080	10		1			60-Flo 10m
13	MB3	2125	BE	ROS		12	51 37 094	130 45 997	1000						
		2143	BO				51 37 213	130 45 817		950	60-69	10			
		2212	EN				51 37 032	130 45 970							
13	MB3	2229		BOT		13	"	"	1000	10		1			60 Flo 10
															PAR ON
14	MB4	0107	BE	ROS		14	51 49.96	130 13 92	205					✓	→
		0112	BO				51 49.96	130 1401		194	70-85	16			
		0126	EN				51 49.99	130 1400							

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MT2 - down cast ~~Primary~~ ~~Secondary~~ temp spike ≈ 300m, back @ 1800m
up cast lost primary temp ≈ 200m

MB3 - lost primary temp 230m downcast
Changed " " cable.

PRIM TO BAD PAIR ON BUT NO DATA

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14	MB4	0200		NET		15	51.49.99	130 1900	200	100					INFO TO COME...
				ROS		16									
14	MB4	0148	BE	BOT		17			200	195		8			60 FTo same depth as ROS no surface
		0348	EN												
14	MB5	0506	BE	ROS		18	51 55.05	129 57.92	142						
		0516	BO				51 55 08	129 57 92		135	86-94	9			
		0523	EN				51 55 06	129 57.96							
14	MB6	0936	BE	ROS		19	52 16 002	129 03065	170						
		0943	BO				52 15 996	129 02 976		168	95-101	7			
		0954	EN				52 15 950	129 02 982							
14	SP4	1421	BE	ROS		20	52 08.95	129 29.98	208					✓	→
		1429	BO				52 08.98	129 29.97		200	102-122	21			
		1498	EN				52 09.01	129 30.00							
14	SP4	1948	BE	NOT		21	52.0895	129 29.97	208	100					
15	CS3	0210	BE	ROS	US	22	50 54 01	129 25.03	184					✓	
		0214	BO				50 54.02	129 25.04		174	123-136	14			
		0225	EN				50 54.05	129 25.06							
15	CS3	0245	BE	NET		23	50.54.05	129.25.06	184	100					

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MB6 - Nosken #2 no fire on cast #19. Bottle + Pylon look okay?

Pan sensor not working on deck. Re-greased connectors. Still no go
Then used config file from cast 8. That worked!

V
Pylon & Bottle looks ok, the bottle doesn't drop if the lanyard isn't aligned straight. The hatch may be suspect.

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15	SS2.5	08:00	BE	Net		#25	51 00.00	130 50.003	~2200	100					time code estimated.
15	SS2.5	1402	BE	ROS		26	51 00.02	130 49.98	~2650					V	PAR SENSOR ON
		1407	BO				51 00.03	130 50.06		150	146-161	16			
		1424	EN				51 00.03	130 50.03							
15	SS2.5	1538	BE	ROS		27	51 00.02	130 50 13	2650						PAR OFF
		1615	BO				51 00.04	130 50.21		2654	138-145/162-165	13			Par off
		1706	EN				51 00.05	130 49.96							Deep Rosette.
15	SS3	2310	EN	Go-Flo		28	51 03.89	130 00.37							significant cliff effect
15	SS3	2314	BE	ROS		29	51 03.89	130 00.40	1415					✓	
		2337	BO				51 03.82	130 00.59		1420	166-177	12			
16		0014	EN				51 03.59	130 00.76							
16	SS5	0256	BE	Go-Flo		30	51 12.00	129 20.91	280						
16	SS5	0439	BE	ROS		31	51 11.57	129 20.60	288						
		0444	BO				51 11.67	129 20 41		278	178-185	8			
		0501	EN				51 11.74	129 20.16							
16	SS7	0832	BE	ROS		32	51 27 991	128 30 000	200						
		0835	BO				51 27 985	128 30 001		185	186-194				
		0844	EN				51 27.98	128 30.00							

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Salinity difference between primary and secondary conductivity sensors about 0.015 Sec-Pr; Absence of bottle salinity data make it difficult to see which sensor is out, but 1763 PRI was used throughout 2004-22 and 2128 Sec was installed at the beginning of this cruise after receipt from Dalinel.

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16	CPC	1314	BO	NET		33	51 00.04	127 50.03	141	100					
16	CPC	1342	BE	ROS	US	34	50 59.97	127 49.95	156					✓	
		1348	BO				50 59.96	127 49.96		140	195-212	18			
		1403	EN				50 59.90	127 49.86							
17	SS6	1330	BE	Net		35	51 21.00	129 00 07	290	100					
			GoFlo			36									NO go flo
17	SS6	1414	BE	ROS		37	51 21.00	129 00 07	240					✓	
		1423	BO				51 20.97	129 00.12		230	213-231	19			
		1442	EN				51 20.96	129 00.52							
17	XB	2035	BE	ROS		38	50 34 984	128 40 050		333				✓	PAR
		2040	BO				50 34 993	128 40 025			232-246				
		2057	EN				50 34 987	128 40 087							
17	XB	2130	Net			39a	50 35 029	128 40 017							
18	G6	0840	BE	ROS		39b	49 03 006	126 59 887	840			13			
			BO							819	247-259				
			EN												
18	G6	10:15	BE	BOT		40	4903001	127 00 004							

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Monday Aug 16 2004

0800 depart CPE ~ 0800 for Port Handy CG crew change

1030 arrive Port Handy Govt wharf

1330 Lv Govt wharf for fuel dock

start fueling

Aug 17 Tuesday

235 ~ Leave XB station for GG

1800 Local: TSG computer crashes. Reboot.

~~Forgot log Net count #36/37 @ station XB.~~

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							Latitude	Longitude							
18	G4	1439	BE	ROS	US	41	49 10.97	126 50.05	149					✓	
		1445	BO				49 10.93	126 50.06		140	260-280	21			
		1501	EN				49 10.87	126 50.13							
18	G4	1520		BOT		42	49 10.90	126 50.04	149						
18	G4	1530		NET		43	49 10.90	126 50.04	149	100					
18	G3	1659	BE	ROS		44	49 15.03	126 42.97	115						
		1703	BO				49 15.03	126 42.95		106	281-291	11	DA, HC 3cm		
		1716	EN				49 15.08	126 42.90							
19	SI03	1354	BE	ROS	US	45	48 35.72	123 30.01	231					✓	
		1400	BO				48 35.74	123 30.01		219	292-315	24			
		1425	EN				48 35.75	123 30.02							

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