

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2010-07
book 2

DATE:

From: Sept 15, 2010 to: Oct 15, 2010

VESSEL:

CCGS Louis S St-Lament

PROJECT(S):

JOIS

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

DAILY SCIENCE LOG

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Month		Year		Ship		Cruise ID									
OCT		2010		LSSL		2010-07									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Latitude	Information Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
8	PP-6	0951	BE	ROS	US	ROS58	76 15.70	132 31.48	3061		1214-1237	24	Night	✓	Cesium cast
		1018	BO				76 15.78	132 31.52		1000					* Winch making whole
		1107	EN				76 15.94	132 31.51							sings on upcast. →
	PP-6	1205	BE	ROS	UN	ROS59	76 16.15	132 31.51	3068		1238-1261	24	Night	✓	Winch now singing on
		1305	BO				76 16.34	132 31.45		3068 +10					downcast:
		1406	EN				76 16.51	132 31.43							(but stopped for upcast!)
		1227	BE	ADCP			76 16.22	132 31.49	3076						
		1132	BO	NET		NET76	76 16.04	132 31.50	3067	100					
		1153	BO	NET		NET77	76 16.10	132 31.51	3067	100					
8		0649	BE	XCTD1		XCTD47	76 24.64	133 52.44		1000					
8		1731	BE	XCTD1		XCTD48	75 55.39	134 06.89		1000					
				ITP											

Cast Type:

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* Len & Dave Baur out to check source of noise - working on diagnosis

- source is main bearing; Dave thinks it is unlikely to seize up. Hydraulics will pull wire in -
- possibility is that there is too much grease - causing misalignment of bearing
- put white kerosene heater on bearing end of winch to see if warming the grease will help

on upcast - starting up, no singing - & none during entire upcast - heater worked?

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							Latitude	Longitude							
08	CB-DW	2152	BE	ROS	UN+USW MIX	ROS60	75 51.419	134 39.806	3419		1262-1285	24	Day	✓	calibration cast
		2255	BO				75 51.509	134 40.298		2164					stopped early to keep time
09		0009	EN				75 51.559	134 40.332							
							NO ADCP due to flight ops @ same time								
		0051	BO	NET		NET78	75 51.34	134 41.40		100					winch counter sticky so wire out estimated
		0109	BO	NET		NET79	75 51.35	134 41.26		100					
09	CB-18	1226	BE	ROS		ROS61	75 00.22	140 00.53	3628		1286-1309	24	Night	✓	winch squeal on downcast
		1313	BO				75 00.27	140 01.06		2200					
		1400	EN				75 00.28	140 01.38							
		1234	BE	ADCP			75 00.24	140 00.61							
		1256	BO	NET		NET80	75 00.26	140 00.87	3629	100					winch counter sticky again
		1314	BO	NET		NET81	75 00.24	140 01.06	3629	100					

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2b.

This page is for any notes or observations

which squeals on downcast

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
9		0450		XCTD 1		XCTD49	75 40.88	136 07.00		1000					
9		0835		XCTD3		XCTD50	75 22.39	138 07.05		1000					
9		1733		XCTD3		XCTD51	74 29.14	140 01.54		1000					
			BE	MOR											BGOS-D
			RE												
				XCTD											
	CB-19	0947	BE	ROS	UN	ROS 62	74 17.57	143 15 04	3697		1310-1333	24	Night	✓	Winch spool worse
		1100	BO				74 17.11	143 14 89		3681 ⁺¹³	(wire caught high)				at start of downcast *
		1211	EN				74 16.79	143 14 67							
		0957	BE	ADCP			74 17.50	143 15.01	3697						
		1028	BO	NET		NET 82	74 17.30	143 14 93	3697	100					
		1048	BO	NET		NET 83	74 17.19	143 14 90	3697	100					

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- * CB-19 - Reddi-heater put on winch bearing 45 minutes before cast, but still squeaks on downcast. Grease line wiped before cast
- Squeak stopped by 1600 on downcast - quite a bit of grease came out of it
- No squeak on upcast

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							Latitude	Longitude							
10		0636	BE	XCTD 1		XCTD52	74 8.01	141 37.71		1000					
10		1546	BE	XCTD 1		XCTD53	74 29.65	144 58.93		1000					
10	CD-6	1928	BE	ROS	UN	ROS63	74 42.628	146 37.302	3779		1334-1357	24	Night/Day	✓	SURFACE PAR
		2047	BO				74 42.446	146 37.052		3768 ⁴⁰					Taking deep water sample
		2156	EN				74 42.342	146 36.829							
		1938	BE	ADCP			74 42.589	146 37.320							
		2008	BO	NET		NET84	74 42.520	146 37.213		100					
		2019	BO	NET		NET85	74 42.49	146 37.11		100					

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← small intrusion (?) at 254. Is this the same ^{small} feature we've been seeing in the NE casts?
(check T.S.)

← some wick squeaks on downcast, start @ 8000ds, stopped by 1000ds.
Ran out of kerosene at 2300ds. Dave Brown says to keep air heater off & see how wick behaves.
cleared SPAR tray of snow & cleared SPAR of the little snow cover it had as well at
1000 M on downcast.

SPAR tray had ~ 2cm of snow.

SPAR sensor had dusting of snow.

No wick noises on upcast.

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							Latitude	Longitude							
11	CB-21	0805	BE	Ros	US	Ros 64	74 01.63	139 59.04	3526		1358-1381	24	Night	✓	Cesium Cast
		0840	BO				74 01.48	139 59.17		1003					no winch squeakers
		0911	EN				74 01.34	139 59.37							on down cast - *
		0938	BO	NET		NET86	74 01.22	139 59.80	3524	100					
		1006	BO	NET		NET87	74 01.11	139 59.97	3525	500					
		1036	BO	NET		NET88	74 00.99	140 00.19	3524	100					

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* cost 64 squeak on upcast 800m → 700 235 - 135
100 - surface - long whistle

(small chirps)

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Month Oct				Year 2010			Ship LSSL				Cruise ID 2010-07				
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							Latitude	Longitude							
11	CB-21	1001	BE	ROS	UN	Ros65	74 01.13	139 59.94	3524		1382-1405	24	Night	✓	Hi-Res cast.
		1022	BO				74 01.04	140 00 11		500					winch squeak on down cast *
		1045	EN				74 00 96	140 00.26							30min whole cast.
		1333	BE	ROS	UN	Ros66	74 00.55	140 00.98	3527		1406-1429	24	Night	✓	Full depth cast.
		1441	BO				74 00.43	140 00 87		3510 ⁺¹⁰					*
		1546	EN				74 00 30	140 00 61							
		1339	BE	ADCP			74 00.54	140 00 97	3527						
	CB-21		BE	MOR											BCOS-D
			DE												
				XCTD											

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between cast 64 & 65 - Bottles 4 & 21 were swapped out

* Cast 65 - put Reddy heater back on which, squeak on upcast

* Cast 66 occasional short squeaks on downcast, first 300m, then continuous after speeding up to 60m/min

Nishin 21 - moderate leak from spiggot - probably block glue joints - fixed with plumbers' epoxy

Nishin 7 - moderate leak from spiggot - chipped o ring lip and pieces of pre stuck in o-ring - Nishin swapped out.

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Month <u>October</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	CB-40	0907	BE	ROS	UN	ROS 67	74 30.19	135 23.92	3267		1430-1453	24	Night	✓	For Knudsen depth
		1010	BO				74 29.81	135 24.07		3243 ⁺¹⁰					Change SSP to 1470
		1114	EN				74 29.47	135 24.21							@ 10:14:30
		0915	DE	ADCP			74 30.14	135 23.92	3267						
		0934	BO	NET	NET89		74 30.02	135 23.98	3266						
		0949	BO	NET	NET90		74 29.91	135 24.02	3265						
				XCTD											
12	CB-50	2009	BE	ROS	UN	ROS 68	73 31.141	134 11.485	2882		1454-1477	24	Dry	✓	Ready Heater on winch
		2113	BO				73 30.883	134 11.867		2842 ⁺⁹					
		2208	EN				73 30.629	134 12.180	2880						
		2015		ADCP			73 31.115	134 11.527	2882						
		2317		NET	NET91		73 30.715	134 11.562							
		2331		NET	NET92		73 31.127	134 11.561							

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Notes:

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Month <u>October</u>				Year <u>2010</u>			Ship <u>L552</u>			Cruise ID <u>2010-07</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	CB-52	1412	BE	ROS	UN	ROS 70	73 29.67	129 29.51	1001		1502-1525	24	Night	✓	Change ssp to
		1439	BO				73 29.53	129 29.61		985 ⁺¹⁰					1455 @ 1408
		1507	EN				73 29.38	129 29.68							
		1417	BE	ADCP			? -	? -							Change ssp to 1445
															@ 14:41:30
		1438	BO	NET		NET95	73 29.53	129 29.61	1000	100					
		1454	BO	NET		NET96	73 29.44	129 29.61	1010	100					
				XCTD											
13	CB-53	1919	BE	ROS	UN	ROS 71	73 23.568	128 32.322	401		1526-1544	19	Day	✓	Heater not being
		1937	BO				73 23.562	128 32.480		396 ⁺⁶					used on winch →
		1959	EN				73 23.501	128 32.686							winch is "singling"
		1931	BE	ADCP			73 23.58	128 32.44							New jiclies on ADCP
		2151	BO	NET		NET97	73 22.65	128 33.26		100					} from ship down/
		2203	BO	NET		NET98	73 22.66	128 33.31		100					
13		1036	BE	XCTD1		XCTD57	73 30.08	130 22.10		1000					

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9b.

This page is for any notes or observations

strong transmission ~~and~~ signal!

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Cruise ID 2010-07

DAILY SCIENCE LOG				Ocean Station			Ship		Cruise ID						
Month				Year			Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Latitude	Longitude							
13		12:05	BE	XCTDI		XCTD58	73 31.15	129 51.78		1000					
13		18:13	BE	XCTDI		XCTD59	73 26.19	128 57.97		1000					
14	CB-54	0103	BE	ROS	UN	ROS72	73 19.254	127 47.548	203		1550-1554	10	Day	✓	quietly squeaky winch
			BO				73 19.186	127 47.513		194+6					
		0129	EN				73 19.122	127 47.484							
		0118	BE	ADCP			73 19.186	127 47.513							
		0123	BO	NET		NET99	73 19.17	127 47.47		100					
		0137	BO	NET		NET100	73 19.05	"		100					
				EM		aboard	after cast 72								

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END

