

DAILY LOG BOOK

MISSION
NUMBER

2002-22

DATE:

From: NOME, ALASKA 5 OCT 2002 to: DUTCH HARBOR, AK 17 OCT 2002

VESSEL:

CCGS "SIR WILFRID LAURIER"

PROJECT:

JWACS // NOAA-PMEL

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

Captain: MARK TAYLOR First Officer: _____
Second Officer: _____ Third Officer: _____

Mission Participants / Agencies:

Scientific Personnel:		Party Chief:		Watch		Cabin	
Name		Name		Watch		Watch	Cabin
CAROL DEWITT		BOB VAN HARTENBERG					
WILLIAM FLOERING							
STEVE SMITH							
PETER PROCTOR							
SARAH THORNTON							
SUSAN HENRICHS							
BOB VAN HARTENBERG							

[illegible]

Data logging computer: DELL 203747

Data acquisition program: SEA SALT
 CTD deck unit make: SEA BIRD model: 33 serial number: 0058

Primary CTD

Make: SEABIRD model: SBE-25 serial number: 0293

Primary temperature serial number:

Primary conductivity serial number: 2607

Secondary temperature serial number:

Secondary conductivity serial number:

Transmissometer:

Model: _____

Fluorometer: Model	Cable gain:

Oxygen sensor: Model:

PAR sensor: _____ Model: _____

Other sensors:

Other sensors:

Other sensors:

Other sensors:

Secondary CTD

Make: SEABIRD model: SBE-9 serial number:

Primary temperature serial number: 4047

Primary conductivity serial number: 7232

Secondary temperature serial number: 4109

Secondary conductivity serial number: 2676

Transmissometer: SEA TECH Model:

Fluorometer: Model SEAPOINT Cable ga

Oxygen sensor: SEA BIRD Model: 5560

PAR sensor: PAR-100 Model: PAR-100

Other sensors: TaxHDA1, S11-

Other sensors: temperature, humidity

Other sensors:

Other sensors:

CTD calibration bottle location (height above CTD in metres): $EO\ ROSETTE \rightarrow \sim 0.5m$

Rosette Setup:

Number of bottles: 24
Manufacturer: G.O. w/ RDE Ryan Ocean Test Equip., General Oceanics, IOS
Volume of bottles (litres): 10L ea

Winches:

- 1. Make: model: serial #: used for:
- 2. Make: model: serial #: used for:
- 3. Make: model: serial #: used for:
- 4. Make: model: serial #: used for:
- 5. Make: model: serial #: used for:
- 6. Make: model: serial #: used for:
- 7. Make: model: serial #: used for:

Comments:

Salinometer: make: N/A model: serial number: Comments:

Thermosalinograph System:

Program: N/A Version:

Sampling interval (seconds):

Fluorometer sensor serial number:

Comments:

ADCP Setup:

Computer time zone: User Exits: Name: Exit points:
Sampling interval (sec): Name: Exit points:
Bin Length: (2^x): Name: Exit points:
Pulse Length: Work File:
Buffer (bytes):
Gyro Offset:
Comments:

Comments:

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>OCTOBER</u>					Year <u>2002</u>			Ship <u>LAURIER</u>			Cruise ID <u>2002-22</u>			
Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
						Latitude	Longitude							
08	CALVEFN	1442	OG		01	57 01.024	164 12.931	64	60 ^{WIRE}		2	Ben	N/A	See next pg. CALVETS (vertical egg tow)
08	CALVEF-E	1646	C		02	56 56.505	163 49.961	65	62 ^{WIRE}			Ben		Similar to last cast but auto @ 0.2 m/s down then up/down @ 1 m/s
08	CALVEF-S	1851	C		03	56 40.011	163 51.911	73	70			Ben		3-4 m swells still cast as #02
08	^{SITE2} CALVETS-C	2034	C		04	56 51.511	164 02.135	68	65			Ben		still 3-5 m swells, less wind (~15 kn)
						EN 56 51.518	164 02.108							
09	BS-2C	0509	R		05	56 52.106	164 03.529	68	63		7(29)	Ben		SBE 9/11 CAST!
		0520				56 52.109	164 03.523							
09	01BS-4	1730	C		06	57 51.496	168 52.804	67	63		-	Ben		winds 4S, seas ~ 5m!
11	01AKP-1B	2014	C		07	54 03.747	166 17.630	75	73		-	Ben		calm, light chop
		2028				EN 54 03.751	166 17.678							
11	02AKP-2A	2214	C		08	53 56.537	165 55.532	114	115			Ben		ALL DEPTHS-BELOW-TRANSDUCER
		2232				EN 53 56.571	165 55.526	117						
12	02BS-4A	1920	C		09	57 51.155	168 51.615	67	65			Ben		GREY DRIZZLE - SWELLS ~ 2m, WINDS ~ 15
						EN 57 51.162	168 51.645							
12	02BS-4B	2214	C		10	57 51.619	168 52.348	67	64			Ben		POST-DEPLOY CAST

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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MR = messenger release time
RE = recover mooring time

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

Additional comments

Cast 1: • Down manual @ ~ 10 m/min, up ~ 1 m/s, then on Auto w/scautrol @ 1 m/s and up 1 m/s to 3 m below sfc
 • CTD: SBE-25 S/N 0293 with T# CH P# 290464 (max 1024m)

Cast 2: same CTD Down w/scautrol set to 0.2 m/s then up, down, up at 1 m/s (stop @ 3 m to reprogram)
 • after cast: adjusted scautrol settings to recommended (Mode 2 Press. gain settings)

Cast 3: same as cast 2 - noted that Scautrol tension during deploy goes to zero so added weight (from ~ 10 lbs to ~ 40 lbs est.)

Cast 4 @ Site 2 (near center) - same as 2 & 3 (in Auto mode) tension up 160 $\leftrightarrow$ 190 down 20 $\leftrightarrow$ 20
 V_{main} after cast = 12.4 V_{lith} = 5.3

10/10 Repaired PDIM module (for SBE25 realtime data): main SBE microprocessor IC chip was loose in the case!
 → need to turn on and leave powered for 3-4 min before SBE25 will send data!
 deck unit

Cast 6: @ Site 4 - down & up at 1 m/s only (too rough for slow cast)

Cast 8: during slow downcast wire tension goes from 0 to ~ 18 kg! Waves: descent oscillates from -0.32 to +0.68
 winds to 30 knots

Cast 9: @ Site 4 (again!) slow cast descent -0.2 to +0.5
 after upload: V_{main} = 12.4 V, V_{lith} = 5.4 V

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						Latitude <u>N</u>	Longitude <u>W</u>							
14	01AMP-1A	0117	C		11	BE 52 26.117	171 26.019	365				Jm	N/A	DESCENT @ 0.5 m/s FOR PMEL TO 200m, THEN 1.0 m/s DN&UP
		0129				BO 52 26.047	171 25.952	376	366					CAST BEFORE RECOVERY
		0136				EN 52 26.063	171 25.927							3-5 m SEAS, WINDS ~ 35 KT
14	01AMP-2A	0311	C		12	BE 52 24.655	171 39.231	456				Jm		T _{FC} 25.5°C
		0320				BO 52 24.573	171 39.038		446					DOWN TO 200m @ 30 m/min (0.5 m/s) THEN 1.0 m/s DN&UP
		0328				EN 52 24.586	171 38.877							S.O.G. 1 KT
14	01AMP-4A	1307	C		13	BE 52 22.914	172 07.783	369				Jm		DOWN TO 200 @ 0.5 m/s
		1319				BO 22.838	7.841		362					SWELL ~ 4-5 m
		1325				EN 22.758	7.860							WINDS ~ 30 KT
14	01AMP-3A	1424	C		14	BE 52 23.865	171 54.404	311				Jm		(AS PREVIOUS CAST) SFC WATER WARMER ~ 16°C
		1434				BO 23.729	54.533	310	300					→ WIRE OUT ~ 5m LESS THAN DEPTH FROM PRESSURE
		1439				EN 23.680	54.665							DRIFT ~ 0.9 KT
14	02AMP-2B	1616	C		15	BE 52 25.189	171 39.344	485				Jm		AS LAST CAST -
		32				BO 25.242	39.679	474	470					CTD 14m = WIRE OUT 10m
		41				EN 25.378	39.738	489						DRIFT 0.9 KT (WSW)? OFFSET (END) = -0.8

Cast type:

USW = sea water loop

• bottle firing method:

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22 March 2002

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Additional comments

Cast 11 - FDT 1817 - down @ $\frac{1}{2}$ m/s (ITEL request) $\rightarrow$ tension on Seantrol +5 $\leftrightarrow$ +25 ($\sim$ 3-5 m waves + swell)
 stop @ 200 m to reprogram for 1 m/s rest of way down (& up) rate - 0.5 $\leftrightarrow$ +1.5

Cast 12 - down & up like 11 - sounder indicated 457 m BUT pressure stopped changing
 at 446 m depth !! incorrect sound speed? Plot looks like ETD touched bottom.

Cast 14 - Wire tension during retrieve (1 m/s) $\approx$ 180 - 210 kg
 (UPLOADED INTERNAL DATA FROM CASTS 13 & 14 AS BACKUP) $\rightarrow$ $V_{main} = 12.2$ V, $V_{iR} = 5.3$ V

* DBT = DEPTH BELOW TRANSDUCER - SUSPECT ACCURACY!
(WATERDEPTH $\approx$ DBT + 5 m)
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						Latitude <u>N</u>	Longitude <u>W</u>							
14	02AMP-18	1752	C		16	BE 52 26.156	171 27.786	445						AS PREVIOUS CAST: FIRST 200 m @ 0.5 m/s THEN 1 m/s DN & UP
		1807				BO 52 26.572	171 27.815	449	440					WINDS LESS, SEAS 2-3 m AFTER DEPLOYMENT ADCP
		1820				EN 52 26.	171 27.							
15	02SM-2A	0045	C		17	BE 52 08.061	172 24.230	165						DOWN @ 0.5 m/s, UP @ 1 m/s SWELLS $\approx$ 1-3 m
		0052				BO 52 08.255	172 23.741	160	162					CTD depth $\approx$ 5 m MORE THAN WIRE-OUT
		0055				EN 52 08.340	172 23.600	162						CAST BEFORE RECOVERY
15	02SM-1A	0340	C		18	BE 52 15.940	172 45.534	166						PEREGRINE FALCON PAIR!
		0347				BO 15.756	45.382	150	144					SWELLS 1-2 m DRIFT 1.5 KT SE
		0349				EN 15.709	45.328							
15	02AMP-4B	1438	C		19	BE 52 22.823	172 06.153	373						CASE AFTER DEPLOYMENT DOWN TO 200 m @ 0.5 m/s THEN 1.0 m/s DN & UP
		1450				BO 22.514	06.230	369	365					SEAS $\approx$ 1 m, LIGHT WIND T _{SC} $\approx$ 6.0 SOG: 1.6 KT
		1456				EN 22.	06.	367						
15	AP-01	1922	C		20	52 21.107	171 30.118	375						IOS MOORING SITE DOWN 10 m - UP TO SFC
		1930				21.243	30.314	388	375					DN & UP @ 1.0 m/s WIND CALM, SEAS $\approx$ 2 m
		1937				21.427	30.437	387						DRIFT NW @ 1.9 KT

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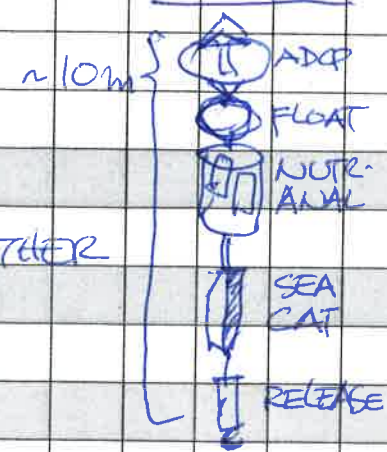
Additional comments

- NO DRAGGING WIRE
- "BLACKIE" HAS ONLY ~300m $\frac{1}{2}$ " WIRE, NOT 600 (AS SHOWN)
- WINCH IN HOLD (FROM "LSL") RUSTED BUT LOTS OF WIRE

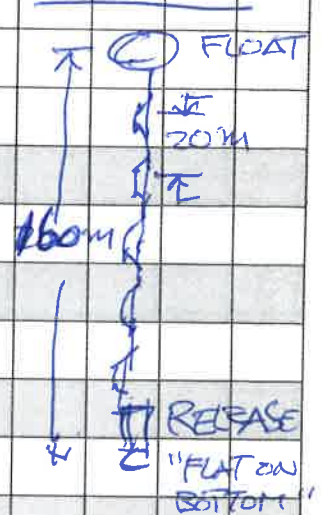
* NOTE: CAST 17 C ~~STA~~ ^{or?} 02SM-2 & 3 $\Rightarrow$ TWO MOORINGS CLOSE TOGETHER

CAN 19: TENSION ON SCANTROL RETRIEVAL ~ 195-220 KG

RECOVERED



NOT RECON.



SINRAD
reusc

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[illegible]

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