

CRN

9011

DAILY LOG

INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

Apr. 17 - 24

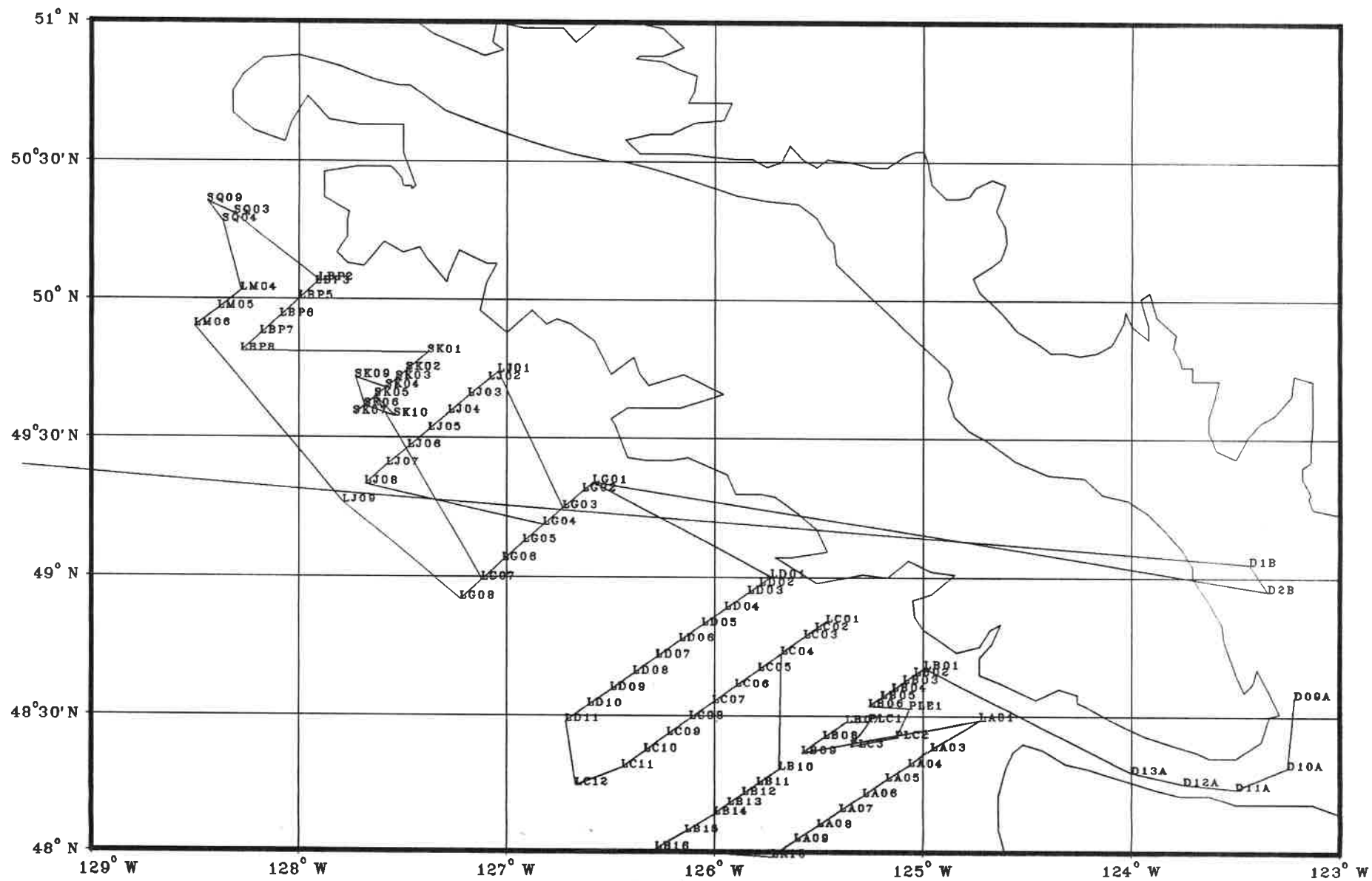
VESSEL

CSS Parizeau

PROJECT

La Perouse / Mass / Deep O. Exchange.

Cruise 90-11



YEAR	1990	MONTH	April	TIME	ZONE	UTC	SHIP	Parizeau	CRUISE	9011	PAGE	1	OF	
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSENGER TIME	SALINITY #/CALIBRATION	LOOP OR DEPTH	OXYGEN #	CTD	SAL/L	NOTES
18	D09A	290	0150	48 34.20	5	0159						8.998	8.93	saved as 90110005 CTD -CONS 1-4 deleted (were test casts)
			0240	123 13.0	280							30.032	30.228	
18	D10A			48 18 90	6	0359						8.879	8.75	Bed surface value Redo cast
				123 15 10	110							30.089	31.366	
18	D10A		0409	48 18 90	7	0409	7	0444	1	548		8.858	8.73	Surface value ok.
			0411	123 15 10	120		100			587		31.079	31.367	
18	D11A	162	0623	48 14 00	8							8.566	8.44	Call OK this time after deeping with Windex
				123 30 00	154	0626						31.355	31.602	
18	D12A	175	0744	48 15.59	9		9			588		8.509		Program bombed on up cast
				123 45.31	170	0749	150	0814		641		31.805		
18	D13A	188	0918	48 17 53	10				2			8.826		#10 crashed.
				124 00.17	176	0922						31.884		
19	LB01	35	0215	48 40.4	13	0221	13	0234	3	548		9.293		#12 no good 13 - touched bottom
			0237	124 52.48	26		30			572		31.621		
19	LB02	50	0256	48 39.14	14	0259	14	0306	4	575		9.283		-touched bottom
			0308	125 02.26	52		45			597		31.508		
19	LB03	90	0340	48 37.34	15	0342						9.179		-lost itself on upcast (did not crash)
			0348	125 05.43	87							31.524		
19	LB04	105	0408	48 35.77	16	0411	16	0428	5	605		8.851		
			0438	125 08.58	110		100			641		31.937		
19	LB05	101	0512	48 34.05	17	0515						9.615		-crashed (locked) on down -also on up - 10:41:20:53
				125 12.01	98							31.903		
19	LB06		0550	48 32 18	18	0600	18	0619		642		9.574		Crashed program with radio
				125 15 51	96					657		31.978		

Cruise 9011 Watches + Duties.

	Reg B.	John L.	Bernard M.	Doug Y.	Rod F	Robin B.	Mark L.	Ken J.	Richard K.	Tom J.
0800-1200	Moor	Instr.			O.E. Work					Moor
1200-1600	Moor	Instr.?	CTD		O.E. Work	O.E. Work	CTD			Moor
1600-2000	Moor?			CTD	O.E. Work	O.E. Work		CTD		Moor + Operations
2000-2400		CTD				CTD				
0000-0400			CTD				CTD			
0400-0800				CTD				CTD		

- Additional Tasks
- ① Bernard and Doug share O₂ Analysis/Sail/ADCP responsibilities
 - ② John assists in mooring operations.
 - ③ Bernard and Doug also assist in mooring operations after their other work is completed.
 - ④ Rod and Robin look after O.E. work and assist in O.E. moorings (sed traps).
 - ⑤ Royal Rodents pitch in as they wish after standing respective CTD watches

Cabins

D B B G C C F F E A

LOADING ACKNOWLEDGEMENT
DANGEROUS GOODS ON IOS RESEARCH VESSELS

Note:

The Chief Scientist must inform the Ship's Master of the presence of any material which requires special handling before this form is signed.

VESSEL: PARIZEAU Date: 17 APRIL 90.

Chief Scientist _____
[print]

Institution _____
[print]

WE CERTIFY THAT THE ITEM LISTED BELOW HAVE BEEN BROUGHT ABOARD FOR THE PERIOD:

From 17 APRIL to 4 MAY, 1990

GAS CYLINDERS^a

HAZARDOUS CHEMICALS^b

<u>SODIUM AZIDE</u>	<u>30g.</u>
<u>ACETONE (90% AQUEOUS)</u>	<u>12 L.</u>
<u>FORMALIN (10%)</u>	<u>6 L.</u>
<u>10% HYDROCHLORIC ACID</u>	<u>20L.</u>
<u>NITROGEN, LIQUEFIED</u>	<u>16 L.</u>
<u>ISOPROPYL ALCOHOL</u>	<u>20 L.</u>

SIGNATURES

Master

Timothy J. J. J.
Chief Scientist

^a List gas and cylinder size

^b Including radionuclides (with total activity)

- CTD program ALTN will crash program (when at sea)
- cons # cannot be changed - started at 0005 because some test casts had been done - may want to be able to change?
- when cta file written to disk time is lost off screen until another field is selected

#8 good cast 162 meter water note
alarm comes on at 87m why?

If you look at up trace the alarm seems to effect the graph. too much alarm. George?

Station D13A - programed just on down cast of #10
restarted program. tried to erase #10 using ALT E
but it came up with #9.
Cast #11 run well.

Standardized oxygen chemicals.

- left CTD line in order to arrive on station C1-J at 0800 Wed. morning Apr. 18

C1-J

On station C1-J 0800 Apr. 18

- ranges 707, 709 m 411? 537? 788, 724.
moving 1/2 cable closer.
707
released - on surface 0807 reply O.K

ORESS30 #819 seriously damaged 2 deep ends
this buoy will be derated for the future.

- proceed to A1-J

A1-J

- on station 1225 PDT Apr. 18, 90

range 1159 m 757

1174 m

Released 1230

on surface 1233

PDT - reply O.K.

"

- buoy #M476 imploded.

B1-J

- on station 1620 PDT Apr. 18, 90
- range 572m. 580m.
- release 1622 PDT. reply: O.K.
- on surface 1624 PDT

Proceed to LBI

- LB05 - program locked on downcast
 - numbers got weird, then didn't change
 - error light until Alt-S

PLEI CTD and plankton. If CTD hits bottom,
be sure to flush and move cone with hose.

overflow in line 0 of module CTD at address
1E14:7D53

Stopped CTD's at LB9

Proceed to mooring C1

Mooring C1-K deployed 0940 PST 19/04/90

48° 29.01' 125° 15.58' W 153.5 m water.

Proceed to LA1 for CTD's + Hydros.

MCSS cal file

Str. lat, long, date, time, CTD log, CTD sol, loop sol, haul log, haul sol, AT, AS, AS log

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	1990	MONTH	4	TIME	ZONE UTC(+7)	SHIP	Pariseau	CRUISE	90-11	PAGE	OF			
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSENGER TIME	SALINITY #/CALIBRATION	LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	plankton	NOTES
19	PLE1	115	0720	4831.57 19	0724			6			9.852	19		hit bottom with CTD
			0745	125 03.69 117							31.696			
19	PLC2	122	0843	4825.44 20	0847			7			10.210	20		
			0909	125 07.63 117							31.513			
19	PLC3	120	1007	4823.53 21	1009			8			10.049	21		
			1034	125 20.70 112							31.733			
19	PLC1	150	1111	4828.86 22	1114			9			9.815	22		- may have touched bottom
			1158	125 15.41 150							31.561			
19	LB07	155	1232	4828.74 23	1234			10			9.259			
			1247	125 22.01 151							31.964			
19	LB08	142	1319	4825.39 24	1321	24	1343	11	548		9.330			
			1349	125 28.63 147		125			588		31.708			
19	LB09	150	1427	4822.02 25	1429	25	1448	12	597		9.805			
			1452	125 34.94 150		145			642		31.450			
19	LA01	260		4829.29 26	2008	26	2031	13	650		9.015			
				124 43.98 263		250			1092		32.059			
19	LA02	300	2118	4826.14 27	2120	27		14	1093		9.871			wrong station and position in header.
				124 51.62 295					2008		31.354			
19	LA03	108	2238	4822.84 28	2240						9.948			
			22:47	124 57.72 104							31.286			
19	LA04	190	2322	4819.45 29	2324	29			2009		9.550			+ nutrients
				125 03.94		125			2020		31.540			
20	LA05	115	0023	4816.06 30	0029			15			10.225			
			0034	125 10.56 116							31.956			

1500 2.527 34.512
 2.530 34.516
 2.530 34.514
 2.530 34.516
 2.531 34.516

3189 18.7 2.89 = 2.56
 18.7 2.89

3132 18.7 2.90 = 2.56
 18.7 2.90

Temp error = .03

LB16 Winch counter cable damaged.

Mooring A1-K deployed 1228 PST 20/04/90

Corrected depth = 500m

48° 31.83' 126° 11.74'

DAILY LOG

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YEAR	1990	MONTH	April	TIME	ZONE	UTC	SHIP	Parizeau	CRUISE	9011	PAGE	OF		
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE / LONGITUDE	STD CONSEC. # / DEPTH	STD TIME	HYDRO CONSEC. # / DEPTH	MESSANGER TIME	SALINITY # / CALIBRATION	LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE / SALINITY	Plankton	NOTES
20	LA06	120	0109	48 12.72	31	0111	31	0126	16	2027	10.202			
			0130	125 17.12	108		100		LOOP	2033	32.140			
20	LA07	110	0209	48 09.34	32	0211			17		10.272			
				125 23.86	107				LOOP		32.455			
20	LA08	137	0252	48 05.81	33	0255	33	0316	18		10.417			
				125 30.34	129		125		LOOP		32.287			
20	LA09	360	0403	48 02.54	34	0404	/	/	/		10.381			Good cast
				125 37.01	357						32.279			
20	LA10	900		47 59.07	35	0459					10.471			
				125 43.26	910						32.035			
	LB16	1800	0755	48 00.66	36	0800	/		18	loop	9.932			mess 0124
			0852	126 16.89	1500				19	cal.	32.062			
20	LB15	1555	0932	48 04.32	37	0936	/		20		10.037			50 m above bottom
			1011	126 08.39	1503						31.501			
20	LB14	1170	1053	48 08.46	38	1056	38		21		10.297			
				125 59.89			1150		LOOP		31.785			
20	LB13	820	1305	48 10.58	39	1307	/		22		10.236			-cooling line for winch
			1335	125 56.19	897				LOOP		31.831			blew below decks
20	LB12	525		48 12.91	40	1445	40				10.057			-hydro first
			1500	125 52.48	5		500				31.725			
20	LB11	210	1528	48 15.18	41	1531	41	553	23	2076	9.845			
			1604	125 47.80	196		200		Loop	1097	31.633			
20	LB10	150	1640	48 18.57	42	1642	/				9.695			
			1650	125 41.35	151						31.244			

Stn LC07 run #49 missing.

Stn LC09, noticed HP computer time is slow by 2 minutes.
Rebooted system. Time corrected by battery clock.
Pressed hydro pump. Diamond gear grease nipple
requires replacement with 90° nipple.

Stn LC11 - Repairs to cooling system for ship's
engines carried out on station after
CTD + Hydro cast.

Stn LC12 - CTD #55 - Plankton haul
- light rain wind 15-20 knts.
- winch counter quit - replaced
with spare - J. Love will
attempt to repair

DAILY LOG

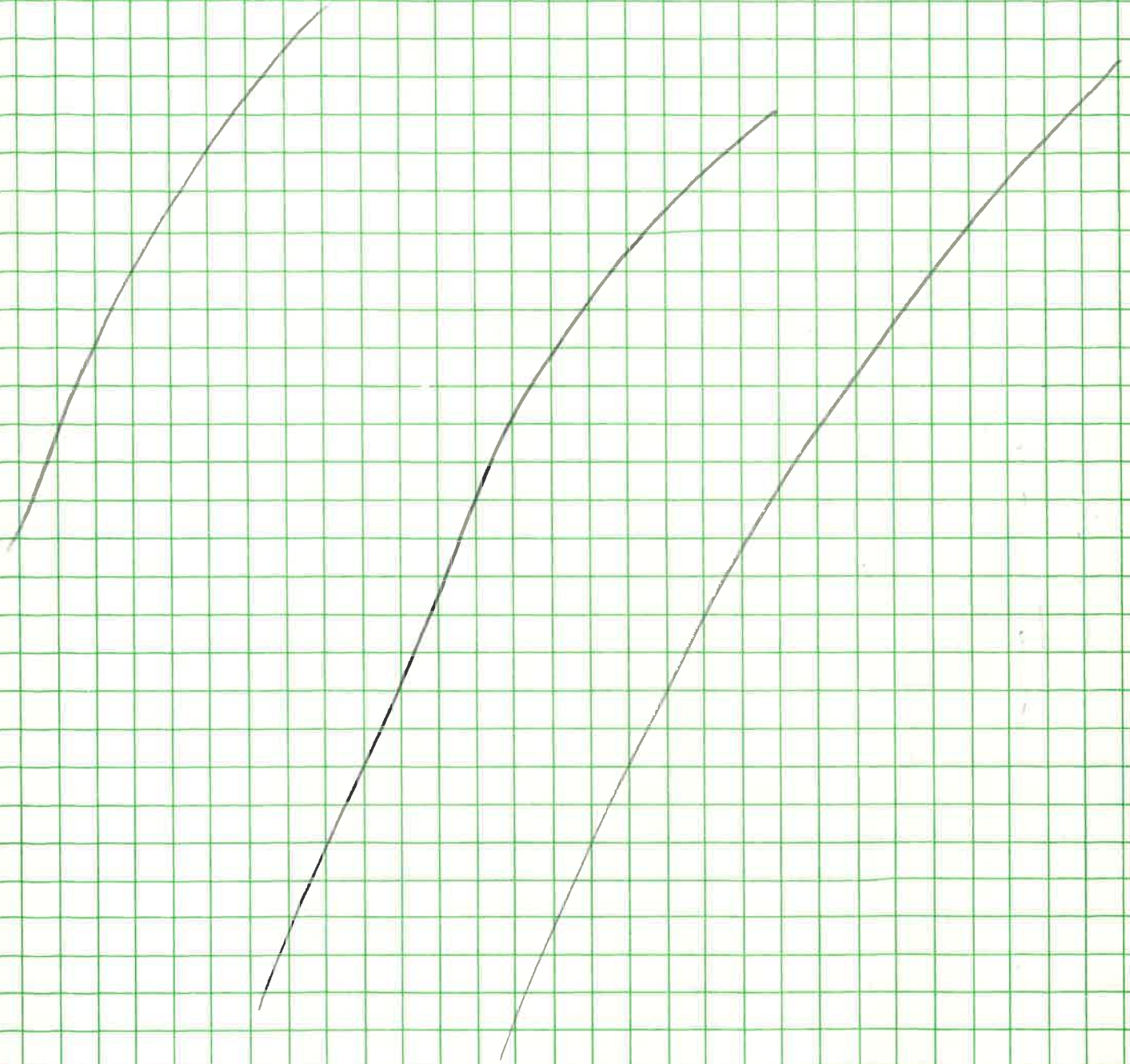
OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	1990	MONTH	April	TIME ZONE	UTC	SHIP	Panama	CRUISE	OP 9011/0E9003	PAGE	OF		
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSANGER TIME	SALINITY #/CALIBRATION LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	Plankton haul	NOTES
20	LC04	162	2247	48 43.34 43	2251	43		24	2027	10.064			
				125 41.02 161	2251	150			2035	30.559			
20	LC03	135	2353	48 46.88 44	2354	/		25		10.559			
			0000	125 34.31 133				LOOP		30.377			
21	LC02	105	0022	48 48.65 45	0023	45	0041	26	2036	10.519			
			0043	125 30.75 103	100			Loop	2042	30.255			
21	LC01	92	0100	48 50.46 46	0102	46		27	2043	10.532			
			0119	125 27.71 90		75		LOOP	2048	30.070			
21	LC05	65	0536	48 39.94 47	0538	/				9.994	47		Plankton haul.
			0606	125 47.40 62						30.671			F.M = 500 END
21	LC06	90	0643	48 36.31 48	0644	/				10.158	48		Plankton haul.
			0704	125 53.89 85						30.852			
21	LC07	125	0739	48 33.02 50	0744	50	0759			10.271			Cons #49 ?
				126 00.46 123		115				31.128			
21	LC08	200	0842	48 29.45 51	0846	51	0904	28		10.256	51		
			0930	126 07.14 199		190				31.496			
21	LC09	660	1006	48 25.95 52	1007	52	1049	29		10.590	52		
			1141	126 13.76 656		600				31.531			
21	LC10	1270	1218	48 22.45 53	1220			30		10.462			
			1252	126 20.10 1254						31.505			
21	LC11	1670	1327	48 19.06 54	1336	54	1450	31		9.862			Repairs to ship
				126 26.38 1495		1500				32.074			on station LC11
21	LC12	2530	1723	48 14.89 55	1727	/		32		9.849	55		Plankton haul.
				126 39.78 1500						31.998			

Note 61 is a blank file

ALTS must have been pressed to
increment course number.



YEAR	1990	MONTH	APRIL	TIME	ZONE	UTC	SHIP	PARIZEAU	CRUISE	90-11	PAGE	OF		
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSAGE TIME	SALINITY #/CALIBRATION	LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	Plankton haul	NOTES
21	LD11-1630	1720	1954	48°28.86	56	1958	/		33		10234			
		2036		126°42.99	1500				loop		32.033			
21	LD10	1500	2112	48 32.29	57	2116	57.	2228	34	1040	10140			
				126 36.65	1489		1475			1060	31.964			Bottle cast to
21	LD09	1070	2352	48 35.66	58	2354	/		35		10.108			-touched bottom
			0023	126 30.00	1073						32.001			
22	LD08	800	0100	48 39.10	59	0102	59	0150	36	1092	9.978			
			0131	126 23.29	797		750			2012	32180			
22	LD07	390	0310	48 42.67	60	0312	/				9.919			Depth should be
			0326	126 16.80	382						32.284			≈ 560 m P
22	LD06	135	0405	48 46.08	62	0407	62	0422		2013	9.914			Do Station
			0435	126 10.18	132		125			2021	31.736			
22	LD05	90	0509	48 49.65	63	0510	/				9.851			
				126.03.60	91						30.818			
22	LD04	60	0556	48 53.13	64	0557	64	0608	37	2022	10.135	64		Plankton Haul.
				125 56.88	59		50			2026	30.646			
22	LD03	45	0700	48 56.62	65	0703	/		37		10.097			
			0708	125 50.34	47						30.447			
22	LD02	40	0727	48 58.72	66	0731	66	0740	38	2027	10.112	65		
			0755	125 47.01	38		35			2031	30.382			
22	LD01	33	0816	49 00.30	67	0817	67		39	2032	10.123			
			0831	125 44.00	38		30			2035	30.393			
22	LD01	59	1214	49 20.53	69	1217	/		40		9.682			
			1221	126 35.05	59						30.085			

[illegible]

- Stopped CTD operations to be on station for deployment of Test Mooring deployed at:

0910 PDT 200m water
49° 08.9' 126° 53.2'

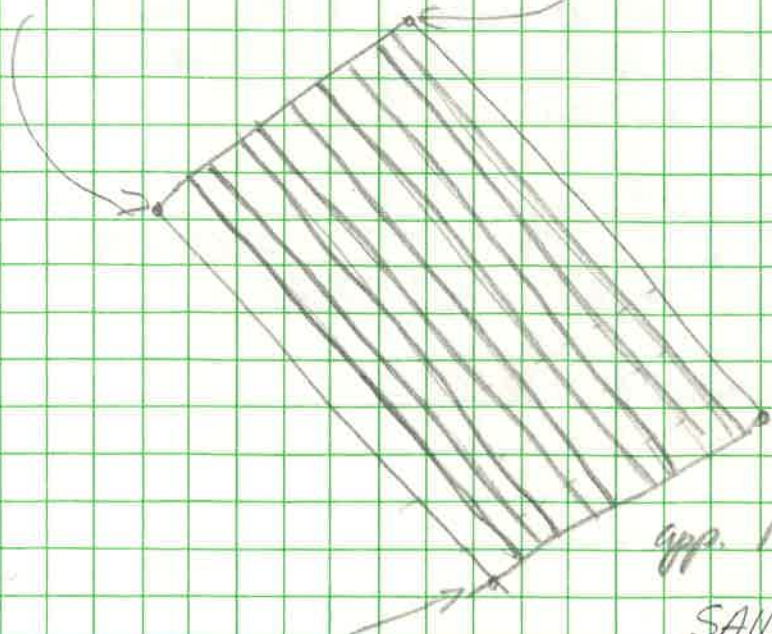
- moved to E01-J for recovery 1102 PDT 22/04/90
 - mooring recovered after some difficulty communicating with release
 - release stopped range counters but was not audible
 - mooring surfaced after 3 release attempts without giving proper release response.
 - mooring exhibited signs of having been hit by heavy fish or tow gear
- deployed E01-K 1258 PST 22/04/90 92m

- proceeded for recovery of Test mooring
- diverted from route by search and rescue request at 1410 PST 22/04/90 app. 7 hr. steam north at 8' south of E01-K 2' west of E01-K.
- arrived crash site app. 2055 recovered wreckage
50° 02.9' 128° 26.2' ADCP + SAIL were operated continuously during run to site.
- conducted search pattern covering a 20 x 10 mile grid centered on search area

approx. = 50° 09.3' 128° 41.0' position

50° 13.5' 128° 27.0' = approx position

*- exact positions recorded by SAIL



49° 58.0' = approx position
128° 15.0'

app. 1 nm grid.

approx = 49° 53.0' 128° 27.0' position

SAIL and ADCP were operated continuously during search.

- CSS *Paricean* stood down 1130 PDT 23/04/90
- resuming oceanographic program with deployment of mooring BPI-K
- deploy BPI-K $50^{\circ}03.62'$ $127^{\circ}53.84'$ in 105m
23/04/90 1319 PST.
- proceed to mooring (Jet) - JI-K
- deployed JI-K $49^{\circ}38.9'$ $127^{\circ}37.8'$ in 577m
23/04/90 1736 PST
- proceed to LJI for CTD's
- due to time constraints hydro's have been dropped

Apr. 24/90

1218 UTC Thermals from calib bottle - cast #79

<u>3189</u>	<u>3132</u>
10.8 2.78	11.1 2.79
10.9 2.78	11.1 2.79

- on station Test Mooring 0800 PDT
- recovered ~~test~~ mooring 0807 ~~PDT~~ 24/04/90
without incident.
- proceed to F03-K
- deployed F03-K 1008 PST 24/04/90 in 500m
at $49^{\circ}05.93'$ $126^{\circ}57.50'$
- proceed to LG04 for CTD's.

CTD #78	1502	2.474	34.523
	1503	2.473	34.523
	1504	2.474	34.524

24/4/90 @ 11/6 UTC

Calibration bottle 3189

3152

19.6 2.85 = 2.50

19.7 2.86 = 2.49

19.6 2.86

19.7 2.86

temp error .03

bottle salinity 34.498

YEAR	MONTH		TIME			ZONE		SHIP				CRUISE		PAGE	OF
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE / LONGITUDE		STD CONSEC. # / DEPTH	STD TIME	HYDRO CONSEC. # / DEPTH	MESSENGER TIME	SALINITY # / CALIBRATION LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE / SALINITY	NOTES		
											CTD	Sail			
24	LJ01	63	0405	49 44.23	71	0408	/				9.985	10.191			
				127 02.47	61						30.597	30.855			
24	LJ02	79	0430	49 42.69	72	0436	/				9.735	9.942			
				127 05.09	75						31.194	31.446			
24	LJ03	124	0523	49 39.18	73	0525					9.530	9.742			
				127 11.03	120						31.525	31.608			
24	LJ04	155	0616	49 35.60	74	0617	/				9.827	10.020			
			0624	127 16.84	148						31.259	31.510			
24	LJ05	1063	0708	49 31.74	75	0712			42		9.710	9.90			
			0740	127 22.40	1053				loop		31.806	31.886			
24	LJ06	1070	0820	49 27.92	76	0823			43		9.413			15m above bottom	
			0849	127 28.52	1034						31.949				
24	LJ07	1823	0928	49 24.05	77	0929			44		9.525			305 above bottom	
			1008	127 34.75	1505						31.815				
24	LJ08	1750	1045	49 20.02	78	1049		1109	45 loop		9.476			calib sample 046	
				127 40.75	1503				46 cal.		31.851			34.498	
24	LJ08				79	1146								calib file	
														- 1 min sample	
24	LG04	145	1858	49 11.29	80	1901			47		10.044				
			1907	126 49.44	145						31.829				
24	LG05	286	1939	49 07.44	81	1940			48		9.843				
			1949	126 55.27	271						32.069				
24	LG06	1010	2022	49 03.56	82	2024			49		9.912			hit bottom.	
			2050	127 01.12	1023						32.281				

Sta LG07 Salinity & 1500 db less than 800 db?

- noticed shift in salinity decreasing with depth
- viewed graphs of past casts and concluded that this did not occur in earlier casts however it is not known exactly when the problem started
- exchanged CTD probes, 45055 being suspect probe was taken off and replaced by 53501
- cast 085 LG08 was down cast using 45055
 - 086 " " up " " "
 - 087 " " down + up cast using 53501
- calibration bottle was placed on cast 087 %51 taken
- the down + up cast traces of cast 087 CTD 53501 overlaid each other very well. It was concluded that 45055 was faulty.
- the transmissometer was mounted on 53501 and it is to be used for the remainder of the cruise.

CTD 53501 is not as noisy as the old coastal CTD 45,055. Screen display is noticeably cleaner.

Sta

085

086

087

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	1990	MONTH	04	TIME	ZONE	UTC	SHIP				CRUISE	90-11	PAGE	OF
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSANGER TIME	SALINITY #/CALIBRATION	LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	NOTES	
											CTD			
24	LG07	1778	2129	4859.48	83	2131			50		9.920			
				12707.08	1507				403		32.163			
24	LG07			4859.4	84	2149							upcast of 83.	
		2205		12707.2	1191									
24	LG08	2085	2250	4855.34	85	2252					10.036			
				12712.99							31.847			
24	LG08	2250	2305	4855.19	86	2311							upcast of 85	
				12712.52										
24	LG08	2250	2335	4855.13	87	2341	87	23:58	34505		9.903		calib cast, new fish	
				12712.39	1503			1:40	51 calib.		31.75		down & upcast logged	
25	LS09	2500	0305	4916.07	188	0329					9.499	Wind	CTD looks good	
				12747.33	1500						31.782	33-38 Knt	not as much noise	
25	LM06	2115	0925	4954.15	89	0930			52		9.252		1494 m wire out	
			1008	12820.21	1508						31.820			
25	LM05	1925		4957.97	90	1049			53		9.215		1495 m wire out	
			1130	12823.18	1504						31.854			
25	LM04	1915	1209	5001.70	91	1212			54		9.036			
			1254	12816.78	1505						32.026			
26	SQ04		1910	5017.0	92	1916			55		9.651		#93 upcast.	
			1941	12823.4	1008						31.307			
26	SQ09	408	2011	5021.24	94	2013			56		9.635		winch contained not giving	
			2037	12826.36	409						31.346		proper numbers.	
26	SQ03	450	2114	5018.77	95	2118			57		9.728			
				12818.55	460						31.278			

102 & 110

112

113

115

Stn Sk01 Seawater loop shut off while engine is running.
leak in lower lat pump
Wrench counter failed. It does not sense the magnetic
ring.

Repaired counter by using magnetic pickup unit
from another Sy-Tech

m/n B31 s/n 87002 works

87003 display not working
magnetic pickup failed

YEAR	1990	MONTH	4	TIME ZONE	UTC	SHIP	CRUISE	90-11	PAGE	OF			
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSANGER TIME	SALINITY #/CALIBRATION LOOP OR DEPTH	OXYGEN #	CTD	SURFACE TEMPERATURE/ SALINITY	NOTES
27	LBP2	90	0915	5004.0	96	0923					9.614		
			0936	12754.2	100						31.032		
	LBP3	163	0946	5003.20	97	0949		58			9.585		
			0955	12755.60	162						31.038		
	LBP5	1280	1030	5000.0	98	1032		59			9.254		Bongo
				12800.0	1284						31.574		
	LBP6	750	1204	49 56.26	99	1207		60			9.100		Bongo
			1257	128 05.52	784						32.008		
	LBP7	2175	1327	49 52.38	100	1329					9.053		Winch counter <u>not</u> reliable
			1410	128 11.16	1503						32.014		
	LBP8		1441	49 48.70	101	1444		61			9.007		-reset counter pick-up -still jumps around. Bongo
				128 16.68	1501						31.964		
28	SK01	75		4948.4	102	1009		62			9.596		Bongo - Winch counter not working
				12722.8	81						31.266		
28	SK02	122	1132	49 44.68	103	1134		63			9.515		counter seems OK
			1147	127 28.50	124						31.311		
28	SK03	540	1206	49 42.73	104	1209		64			9.545		
			1229	127 31.91	544						31.323		
28	SK04	550	1248	49 40.87	105	1250		65			9.512		
			1306	127 34.92	547						31.372		
28	SK05	575	1326	49 39.01	106	1327		66			9.253		
			1345	127 37.92	575						31.833		
28	SK06	720	1405	49 36.86	107	1406					9.216		
			1430	127 40.93	744						31.871		

Created IMA files of data, deleted PRN files (not
proper printed anyway) and all the .CNV and .DEL files

Joe's shell #5 would not work on cross number longer than
100, yet individual shell number would.

CNV

DEL

msd 107 difference greater than 2 of 738 - 748

YEAR	1990	MONTH	April	TIME	ZONE	UTC	SHIP	Parrizanu	CRUISE	9011 (0590)	PAGE	OF	
DAY	STATION NUMBER	DEPTH SOUNDING (M)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC. #/DEPTH	STD TIME	HYDRO CONSEC. #/DEPTH	MESSANGER TIME	SALINITY #/CALIBRATION	LOOP OR DEPTH	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	NOTES
28	SK07	1030	1448	49 35.14 108	1449			67		9.213			OK STN 028
				127 44.27 1051				LOOP		31.888			
28	SK04	510	1640	49 40.8 109	1645					9.528			CAST TO 250m ONLY
28		~1715	127 34.9 252							31.396			OK STN 029
28	SK09	~800	49°43.04 110	1813						9.417			OK STN 030
			127°43.49 252							31.765			
28	SK06	700	1922	49 36.9 111	1930			68		9.222			Bottle cast (3 depths)
			1955	127 41.1 251						31.912			
28	SK10	560	2032	49 34.86 112	2038			69		9.501			Bottle cast (3 depths)
			127 32.74 252							31.625			
28	SK05		2147	49 39.31 113	2149			70		9.631			Bottle cast.
			127 38.33 252							31.540			
29	LG07	1762	0704	48 59.41 114	0710			71		9.333			
			0726	127 07.24 500						32.195			
29	LG06	950	0803	49 03.60 115	0805			72		9.376			
			127 01.10 963							32.126			
29	LG05	270	0927	49 07.38 116	0930			73		9.271			
			0939	126 55.28 273						32.110			
29	LG04	143		49 11.34 117	1016					9.490			Touched bottom
			1022	126 49.30 144						31.857			
29	LG03	120	1053	49 14.58 118	1058			74		9.659			Buoy
			126 43.72 120							31.454			
29	LG02	100	1155	49 18.66 119	1157			75		9.568			
			1203	126 38.95 100						31.284			

Sevann winch n/r 410 s/n 1212 used with Business and rosette sampler had the following problems:

- ① had not been greased for long time, some bearings extruded water when greased.
- ② lub housing on left side of drum was dry. The fill plug was rusted in and the housing had to be removed to allow engineers to replace plug.
- ③ spooling drum gear chain broke twice. I believe the drag caused by the moorings in heavy swell conditions towing at 3 knots, exceeds the working conditions of the winch. At one point when the cable was coming in, the tension forced the drum to reverse and pulled cable off the winch.

hydraulic pressure idle = 350 psi
 pulling 1150 psi

29 April Seawater loop remote loop. connection checked.
Seems OK. Loop pressure is 17. psi. The
valve after the pump is wide open.

1738 Ken Dorman and Rod Forbes depart in Zodiac for Ulnuilet.

May 2

- Using Ver 1.02 of CTD.EXE

Notes

- Alt-S upcast display should still show station # etc
- maybe should say IDLE or something
- should be able to enter a new station's lat & long on the mainscreen

DIB 49 02.9 320
 123 26.2

- on upcast, salinity tracked OK but offset +.2 ppt

TEST

- #123 - logged down & up - lines perfectly overlapped
- 124 - logged down & Alt-S up - overlapped perfectly!

[illegible]