

DAILY LOG

CRUISE
NUMBER

2000-28

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION

DATE

Oct. 5 - 15, 2000

VESSEL

J.P. Tully

PROJECT

La Perouse, CRD, Effingham,
Hot Vents, Juan de Fuca,
Georgia Strait.

Date Time PDT Cruise 2000-28

Oct 5 0730 - Dave Spear, Dave Fithic, Bernard Minkley, Jane Eert, John Lane, Tom Subase meet at I.O.S. complete final loading of vehicles

0800 - white van, crewcab, astro van leave I.O.S. for Gold River.

0905 - Tully notified vehicles on the way.

1430 - all vehicles at Bonwater Mill jetty complete cross loading of personnel and equipment between cruise 2000-30 and 2000-28

1530-1600 - Dave Mackas crew depart for home.
- Tully crew re-provision ship

1900 - Tully departs Gold River heading for mooring BP1-EE

- posted science watches

- NB: this is the most experienced crew I have had on these cruises in years
- it's a pleasure!

Oct. 6 0735 - on station BP1-EE for recovery
- ranges 114, 116, 119. app 68 m distant.

0747 - moving to release position
- range 203 m app 180 m distance
- sent ACGH - received positive response

0749 - sighted on surface

- recovered without incident in calm seas -
no wind - large H dominating weather
warp along west coast.

- prepare for redeployment.

1004 - deployed mooring BP1-FF in 101.25 m
water 50° 03.69',
127° 53.49'

- head for CTD's in Esperanza +
Machalat buoys.

LD07 adjusted flow rate to Thermo fluorometer. Previous data suspect, no flow through sensor.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month October			Ship J. P. Tully				Cruise I.D. 2000-28		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
06	LOOP	1	0600			49 31.48	126 56.48		105					LOOP TAKEN
06	LOOP	2	2000			49 51.47	127 18.34		64					"
7	LD01	ROS	0502	BE	1.	49 00.16	125 43.80		36		1-4	4		
7	LD02	ROS	0538	BE	2.	48 58.39	125 47.10		44		5-9	5		Loop #3
	LD02	VPH	0557		3.				41					VPH @ 35m
7	LD03	CTD	0633	BE	4.	48 58.35	125 50.41		48	44				116 31.58
7	LD04	ROS	0728	BE	5	48° 53.20	125° 57.06'		63	55	10-15	6		Loop, Pinger little help.
7	LD04	BONGO	0751	BE	6	48° 53.22	125° 57.01'		63	55				
7	LD05	CTD	0848	BE	7	48° 49.73	126° 03.61		91	86				
7	LD06	ROS	0939	BE	8	48° 46.20	126° 10.21		137	133	16-23	8		
			0951	EN		48° 46.18	126° 10.21							
7	LD07	ROS	1039	BE	9	48° 42.73	126 16.77		492	480	24-26	3		sal cal
			1058	EN		48 42.69	126 16.74							
7	LD08	ROS	1144	BE	10	48 39.12	126 23.40		772	778	27-43	17		Loop sal
			1221	EN		48 39.12	126 23.34							

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

Date Time PDT

- Oct. 6 - at entrance to Esperanza receive word we can leave SAR zone for day of 7th but have to return 8th.
Change plans to do LD Line + southern moorings first.
- Oct. 6 2130 - at LD1 discovered XT6000Pinger on Rosette is flooded from previous cruise. - changed out pingers
- Oct. 7 0730 - approaching A1-EE - calm seas sunny high
- Oct. 7 0734 - on station A1-EE for recovery.
- moving Rosette. range 516
0743 - ranges 524, 525, 526, 531
- stopped up ranges = 540 247m distance.
- 0746 - range 542
- sent ABGH received positive response.
- range 459
- 0830 - all on board and cleaning up
- the gimbal rod on REM4 #6014 vane #3 got pulled through housing on deployment.
- decided not to redeploy T-chain 908 DL + chain 1308 because it requires calibration.
(see notes on specific instrument)
- preparing mooring on deck including Fish Tags installed in mooring at:
2538 + # 2503 at app. 32 m
2699 + # 2539 " 61 m
2506 " 81 m
- 1046 - deployed mooring A1-FF in 505 m
water corrected for draft. at position:
48° 31.719' 126° 12.178'
- flooded XT6000Pinger being repaired. app. 1 cup of water resting above transducer
- heading for Tofino TG for recovery.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month Oct			Ship Tully				Cruise I.D. 2000-28		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
8	MUC5	ROS	0346	BE	11	48 39.00	126 28.45		212		44-55	12	BM	
8	MUC5	ROS	0352	BO		39.02	28.47							
8	MUC5	ROS	0400	EN		39.00	28.47							
8	MUC4	ROS	0442	BE	12	49 38.51	126 20.78		286		56-68	13		
			0503	EN		38.53	20.86			283				
8	MUC3	ROS	0538	BE	13	49 38.99	126 14.51		359	367	67-80	14		large sal #6.
			0602	EN		49 39.03	126 14.41							no wait to close bottles.
8	MUC2	ROS	0631	BE	14	49 40.20	126 09.59		365	363	81-94	14	BM	no 30s wait to close
			0648	EN		49 40.20	126 09.70							bottles
8	MUC5km	ROS	0732	BE	15	49° 39.06'	126° 05.52'		172	165	95-104	10	JE	
			0745	EN		49° 39.03'	126° 05.52'							
8	MUC1	ROS	0819	BE	16	49 37.53'	126° 03.65'		130	125	105-112	8	JE	
8	TLU1	ROS	1047	BE	17	49° 41.60	126° 30.92'		263	258	113-124	12		large sal #7.
8	TAH3	ROS	1215		18	49 47.94	126 39.02		123	120	125-132	8	BM	
8	TAH2	ROS	1256		19	49 51.39	126 39.71		198	13	133-143	11		large #8.
	TAH1	ROS	1340		20	49 54.04	126 39.38		151		144-153	10	BM	

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

Date Time PDT

Oct. 7

1348:

- slowing to be on station TofuotCG
- range 80, 79 m distance = 36 m.
- moving off to release position.

- range 231 - 284 m = 220-275 m dist.
1350 - sent CDEH received positive response
1353 - sighted on surface
- recovered using small boat without incident.

1415 - heading for FOI-EE for recovery.

1730 - approaching station FOI-EE

1732 - stopped on station

ranges 124 → 179 m 73m → 148m
distance.

1738 - range 243 distance 220 m

- sent ABEG - received positive response

1739 - sighted on surface.

- recovered without incident.

- head into Muchalat, Takais and

Zeballos Inlets for Dario Stuechi Stations

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month OCTOBER			Ship TULLY			Cruise I.D. 2000-28			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
8	ZEB2	ROS	1512	BE	21	49 55.55	126 47.94		225	221	154-164	11	TJ	Loop # 9
			1528	EN		49 55.53	126 48.03							
8	ZEB4	ROS	1624	BE	22	49 51.32	126 55.57		229	228	165-176	12		Loop # 10
			1640	EN		49 51.32	126 55.57							
10	EFF01	ROS	2047	BE	23	49° 05.55	125° 11.61'		36.5	35	177-181	5		Loop # 11
			2054	EN		49° 05.55	125° 11.60'							
10	EFF02	ROS	2115	BF	24	49° 05.02	125° 10.33'		70	68	182-187	6		Loop # 12
			2123	EN		49° 05.01'	125° 10.31'							
10	EFF03	ROS	2149	BE	25	49° 04.27'	125° 09.42'		120	115	188-195	8		Loop # 13
			2159	EN		49° 04.27'	125° 09.38'							
10	EFF04	ROS	2237	BE	26	49° 03.09'	125° 08.57'		57.25	55	196-200	5		Loop # 14
			2243	EN		49° 03.10'	125° 08.57'							
10	EFF05	ROS	2301	BE	27	49° 02.54'	125° 09.14'		205	199	201-211	11		Loop # 15
			2318	EN		49° 02.58'	125° 09.15'							
10	EFF06	ROS	2336	BE	28	49° 01.79'	125° 09.19'		149	145	212-220	9		Loop # 16
			2349	EN		49° 01.76'	125° 09.18'							
11	EFF07	ROS	0007	BE	29	49° 01.24'	125° 09.40'		118	112	221-228	8		Loop # 17
				EN		49° 01.22'	125° 09.40'							

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

Date Time PDT

Oct. 8 - 0730 - completing inlet stations then
to 1130 head for E01-FF for
deployment.

- 1517 - deployed mooring E01-FF in
100m water corrected depth
at position $49^{\circ} 17.521'$
 $126^{\circ} 35.756'$

proceed to mooring E03-EE for
recovery + service on site

Oct. 8 - 1729 approaching E03-EE

- 1732 - on station ranges 383, 384, 380
 we are directly over mooring.

- move of to a release position.

1741 - ranges 383-411

- sent BCFG range 433

↳ received positive response

1743 - sighted on surface

- recovered without incident

- servicing + setting up new mooring

1938 - deployed mooring E03-FF in
402m corrected depth at position
 $49^{\circ} 05.540'$ $126^{\circ} 55.990'$

without problems but also in the dark
and could not witness mooring submerge.

- we have been released early from SAR
zone with arrival of Bartlett in area
thruway!

- heading for Hot Vent moorings in calm
seas with large but diminishing swell

- expect to arrive early in morning Oct. 9

Oct. 9 0736

- on station ERWASP5 for recovery
- ranges not consistent only one suitable 2310 m which is questionable

- listened for XT6000 - no responses
- used dunking transducer in IO system
- used both hull + dunking transducers for Benthos transponder.
- also changed from star to port transducers
- relocated to be on top of mooring again. - received 2256, 2253 on IO 2216 on Benthos.
- switched to Ram transducer and deployed Ram

- received one good range 2258 port transducer seemed best
- on station received 2251, 2256

- the mooring is on site

- communication with IO is weak
- communication with Benthos is being interfered with a signal that prematurely stops range.

0841

- moved back on station
- range 2255
- sent CDEF received positive response
- range 2250, 2251
- sent CDEF again received positive response
- " " " "
- range 2263 m
- 2269 2269
- sent CDFG sent CDEF received positive response

0910

- received Benthos at app. 1544
- 1527 receiving ranges as it rises 1292, 1222, 1218, 1151
- sighted on surface app. $\frac{1}{3}$ mile distant.
- VHF gave good signal
- Argos received app. 300 m away.
- head for ERWASP4

Date Time PDT

ERWASP 4.

Oct. 9 1235 - approaching station able to range on X 76000 as far as 1.2 km distance as we approach

- range 2192, 2186 by Benthos

- no ranges on IO

1239 - sent ABF for transpond on

- range 2199 = 317 m distance.

- due to drift over - range 2190
will release at optimum time 2187
2186

1246 - range 2191

- sent AFGH received positive
response.

range 2089

2043

1969

1893

1313 - on surface VHF signal comes in

- receive Argos app. 200 m away.

- recovered in developing gale conditions

1426 - on station ERUW-1

- sent ABD

- range 2202, 2189 by Intercean.

2174 by MORS/Benthos.

2176

1430 - sent ABCD received positive response.

2105

2063

* - 30+ knot winds
1505 - sighted on surface - conditions marginal - sea building
- VHF not working XF working 2-3 m swell
- Argos working + sea.

1550 - all on board heading for LB16

- cleaning up mooring on deck.

1700 - full gale conditions - cancelled work
heading for Effingham Inlet.

Date Time PDT

Oct. 10

0730

- app. 2 hours away from Effingham Inlet
- lab needs clean up after gale overnight
- some oxygen chemicals spilled. still have 500 ml of each left which should do the cruise
- winds have died down as well as sea but there is still a large swell running.

Oct. 10

1051

- on station CTC11-C for recovery.

- range 205 m = 187 m distance
- maneuvering closer and coming out of generator mode
- ram was not deployed.

1105

- range 112 107

- sent ACEH' received positive response.

1107

- sighted on surface

Cup labelling - looking at motor, cup on left labelled #1
#1, #2 - looking down

1210

- on station CTC3-C for recovery.

- range 202 m dist = 116 m

1211

- sent DEGH received positive response

- range before release 192 m

1213

- sighted on surface.

1238

- all on board heading for CTD's at head of inlet.

BSU trap - like CTC11 - looking down



DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month OCTOBER			Ship TULLY				Cruise I.D.		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
11	EFF08	ROS	0041	BE	30	49° 00.67'	125° 10.25'		85	83	229-235	7		
				EN										
11	EFF09	ROS	0116	BE	31	49° 00.12'	125° 10.83'		63	62	236-240	5		Loop #18
			0123	EN		00.09'	125° 10.85'							
11	EFF10	ROS	0135	BE	32	48° 59.83'	125° 11.22'		100	93	241-247	7		Loop #19
			0146	EN		48° 59.81'	125° 11.23'							
11	EFF11	ROS	0205	BE	33	48° 59.13'	125° 11.02'		86	80	248-253	6		Loop #20
			0214	EN		48° 59.12'	125° 11.04'							
11	EFF12	ROS	0236	BE	34	48° 58.01'	125° 10.53'		92	85	254-260	7		Loop #21
			0246	EN		48° 57.99'	125° 10.51'							
	LBO2	ROS	0546	BE	35	48 38.95	125 02.44		59	51	261-265	5		
			0551	EN		48 38.94	125 02.35							
	LBO3	CTD	0622	BE	36	48 37.36	125 05.60		96	89				
11	LBO4	ROS	0657	BE	37	48° 35.73	125° 08.66'		113	107	266-272	7		
			0709	EN		48° 35.80	125° 08.61'							
11	LBO5	CTD	0741	BE	38	48° 34.06'	125° 11.94'		103	98				Loop #22
			0747	EN		48° 34.05'	125° 11.95'							

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <i>2000</i>					Month <i>OCTOBER</i>			Ship <i>TULLY</i>			Cruise I.D. <i>2000-28</i>			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
11	LB06	ROS	0819	BE	39	48° 32.21'	125° 15.47'		117	112	273-280	8	JE	pumps stopped before last bottle
			0833	EN		48° 32.19'	125° 15.52'							fixed
11	LB07	CTD	0923	BE	40	48° 28.70'	125° 22.12'		158	152	/		JE	
			0930	EN		48° 28.68'	125° 22.10'				/			
11	LB08	ROS	1016	BE	41	48° 25.30'	125° 28.64'		141	132	281-289	9	JE	Loop #23
			1029	EN		48° 25.23'	125° 28.74'							
12	JFA1	CTD	0310	BE	42	48 22 09	123 20 03		90		/			
12	JFA2	CTD	0333	BE	43	48 22.76	123 20.11		44	38.				
12	JFA3	CTD	0412	BE	44	48 17.25	123 20.05		98	90				no oxygen return.
12	JFA4	CTD	0445	BE	45	48 14.28	123 20.21		50	47	/			
12	JFA5	CTD	0512	BE	46	48 11.92	123 20.05		95	89.				
	JFA6	CTD	0544	BE	47	48 09.20	123 20.09		55	51	/			
12	LOOP	#24	0700			48 20.20	123 19.15		75					LOOP TAKEN #24

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time

MR = messenger release time
RE = recover mooring time

- Date Time PDT
- Oct 11 0850 - on station JF1A-E for recovery
- ranges 212, 211, 209 = 54 m range
- weak return on top of mooring
- drifting off and ranging
- 217, 220, 225
- 232 m = 125 m distance
- 0856 - sent ADFH - weak response
- sighted on surface
- top 2 instruments fouled with gill netting - 54 completely shrouded - PCM's some netting wrapped on buoy above it may have reached instrument too
- dead fish still caught in netting
- cleaning up + proceeding to ADCP mooring
- called Steve Mihaly to update status
- 1015 - approaching JF2C-E for recovery
- 1017 - app 100 m of gliding in.
- range - no response
- sent CDF -
- ranges 198 = 59 m dis.
- moved off range 278
- 1021 - sent ACDF - no response
- sent CDFG
- sent ACDF - got positive response
- sighted on surface
- not as muddy as a winter deployment
- VHF, XF, pinger + Argos all working
- call Steve again.
- heading for JF3A-E

Date Time PDT

Oct. 11 1145 - on station JF3A-E for recovery. app 110 m off station.

- range 205, 208

1148 - sent BCEH - received positive response
- sighted on surface

- recovered without incident
- 54 and ACM7 fouled enough to effect rotor operation.

- heading in to Victoria ETH 1530-1600
- contacted Steve and passed on ETH

1430 - approaching Victoria, Tully gets called for SAR - man in the water around Ross Bay
- Tully designated "coordinator"
- searching Ross Bay Trial Is. to Clover Pt.
- 10 other craft + Buffalo search plane involved.
1615 - SAR stood down.

1645 - tied up in base Huron St. - met Steve + Ming - Ming stays with ship.
- cross loaded. - ADCP + 254's + paired release set.
- along side to fuel CCG Many berries
- along side for supper.

1900 - depart for JF CTD lines

Date Time ADT

Oct 12 0739 - on station TMS-A for

- recovery
- listening for mooring without result - one questionable return on call ping
- moving back on station
- tried again without result
- moving on station again.

* tried pinger - got strong signal mooring is on site

0817 - sent release code 20 - no response
mooring did not rise.

- moved back on station.

0830 - sent release code no response
- sent 20 again no response

- mooring sighted on surface

- mooring recovered without further incident

- check release on deck -

- it performed all functions

but very weakly - not heard by ear.

- the reply pulses could not be felt

and only bare heard through earphones

- heading for other TM moorings

- some conclusions

- the check unit arrived back from Arctic with a loose electronics board and broken off capacitor and broken lead to control switches - this was repaired and I believe the unit is working well as usual.

- Reg had cautioned me about this particular release being different - notes indicate it doesn't call pro - yet on deck it does

- move on deck unit - Reg's notes say he tested the transpond of the releases using this deck unit - after damage in field and fires on board transpond function not there.

Date Time PDT

Oct. 12 1000

- on station TMI-A for recovery
- no response to call ping
- pinger indicates mooring is in place
- launched small boat to see if conditions are better from it.

Dave + Darren in small boat.

- launch hears pinger but not release.

1030 - sent code 06 no response

- sent code repeatedly

1040 - received positive response * but mooring does not surface.

- more release codes not successful.

- the Captain is concerned about dragging near submarine cable and wishes to get more accurate information on its location.

- we don't know if there is a common deck unit problem

- small boat sent with Dave + Darren

to locate and try to communicate

with moorings TM 2-4 to confirm if

we have a problem with releases, or deck unit.

- Tully stayed on site TMI in case mooring surfaces - tide started to change at

app. 1200 - Tully stayed on site til 1300 hrs.

- the results of small boat survey is that pingers were heard at each site, but the releases were not.

- assuming the deck unit is not operating correctly

- the Captain does not want to drag for the mooring even though the ^{summit} cable is marked 1/2 mi. away. He is concerned with integrity of cable positions.

1300 - we have been on site for 2 1/2 hrs and a tide change + mooring TMI has not

come up. The response to the release command

was only a single pulse during the command

sequence. The mooring may not have released

at all

*

Date Time PDT

Oct 12 1300 - depart TMI site heading for TMI5 and deployment.

1414 - deployed mooring TMI5-B in 199m (corrected) depth at position $48^{\circ}54.208'$
 $123^{\circ}16.019'$

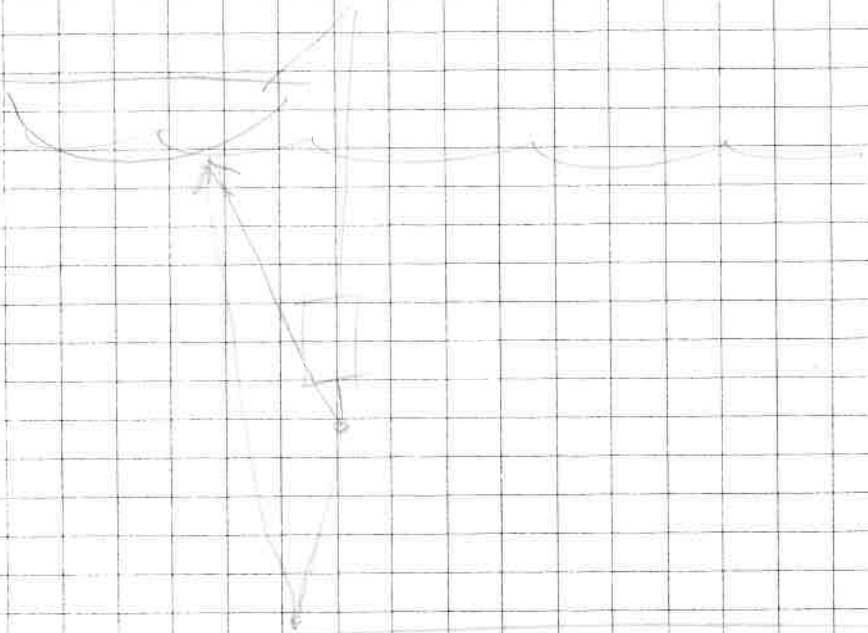
1628 - approaching CRD10-D for recovery
- multiple ranges approaching mooring

1641 - sent ADG H - received positive response
1642 - sighted on surface
- recovered without incident
- moderately fouled but enough to effect rotation of rotor.

1700 - heading for JFB line for CTD's

Seawater loop intake strainer checked.

Checked CTD fluorometer OK



DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2000</u>					Month <u>October</u>			Ship <u>Tully</u>				Cruise I.D.		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
13	JFB5	CTD	0355		48	48 09.77	123 35.33		52					
	JFB4	ROS	0421		49	48 11.78	123 35.32		134	128	290-291	2.		Sal Cal.
	JFB3	CTD	0457		50	48 13.78	123 35.35		157	153				
13	JFB2	ROS	0526		51	48 15.90	123 35.29		189	187	292-293	2.		Sal Cal
13	JFB1	CTD	0554		52	48 17.70	123 35.33		155					
13	JFC1	CTD	0700	BE	53	48° 20.17'	123° 44.96'		64	58				
13	JFC2	ROS	0718	BE	54	48° 18.55'	123° 45.02'		173	166	294-295	2		Sal Cal @ 166m 150m
			0733	EN		48° 18.67'	123° 45.04'							
13	JFC3	ROS	0758	BE	55	48° 16.56'	123° 45.04'		185	180	296-297	2		Sal Cal @ 180m 150m
			0809	EN		48° 16.54'	123° 45.05'							
13	JFC4	ROS	0829	BE	56	48° 14.45'	123° 44.98'		169	164	298-299	2		Sal Cal @ 164m 150m
			0837	EN		48° 14.55'	123° 44.99'							
13	JFC5	ROS	0900	BE	57	48° 12.41'	123° 45.01'		141	138	300-301	2		Sal Cal @ 138m 125m
			0909	EN		48° 12.39'	123° 44.94'							

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2000					Month OCTOBER			Ship TULLY				Cruise I.D. 2000-28		
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
13	JFC6	CTD	0931	BE	58	48° 10.44'	123° 44.92'		55	49	—			
13	JFD7	CTD	1054	BE	59	48 11.76	123 59.92		49		—		BVA	
	JFD 6	CTD	1136		60	48 13.76	124 00.01		117	109	—			
13	JFD 5	ROS	1200		61	48 15.74	124 00.08		182		302-303	2		Sal Cal.
13	JFD 4	CTD	1225		62	48 17.66	124 00.11		189		—			
13	JFD 3	ROS	1249		63	48 19.64	124 00.08		167		304-305	2		
13	JFD 2	CTD	1316		64	48 21.82	124 00.14		122		—			
13	JFD 1		1335		65	48 23.07	124 00.11		56	51	—			loop sal
14	LA01	ROS	0214	BE	66	48° 29.15	124° 44.19'		264	259	306-317	12		Sal Cal
			0232	EN		48° 29.26	124° 44.35'							

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

Date Time PDT

Oct. 13 0735 - on station JF2A-E for recovery.
- flat calm - foggy

- ranges 154, 155, 156

distance = 115 m

0747 - sent ABCD - received positive response

0748 - sighted off stern

- recovered without incident

- the top instrument had been

hit - bent gimbal neck

- instrument gimbal broken
and slid down to top clevis
eye.

- cleaning up on deck

0932 - deployed mooring JF2A-II-F
in 105 m water at position
48° 24.766' 124° 09.966'

0940 - head into Port Renfrew to pick up
ADCP and service tide gauge

1039 - off Port Renfrew - launched small
boat with Dave + Darven + Chief
mate

1200 - small boat comes back - new
Tide Gauge deployed 124PDT #87
- heading for deployment of
JF2C-F mooring

1405 - deployed mooring JF2C-F at position
48° 21.199' in 190.75 m water
124° 12.273'

- head for mooring JF2C-E for recovery.

Date Time PDT

Oct. 13 1449 - on station ✓ F2E-E
 - ranges 201, 202
 = 135 m distance

 1450 - sent ABEH - received positive
 response

- sighted on surface.
- recovered without incident
 top instrument sufficiently fouled
 to effect rotor speed. - rotor
 still spinning but fouled by
 hairy growth.

1604 - deployed mooring ✓ F2E-II-E
 at 48° 15.105' 124° 09.791'
 in 151 m water.

1615 - head for LA Line CTZ's

Oct. 14 0300 - completed LA Line + steaming back
 0800 - entering Juan de Fuca. heading for
 ✓ F2E-Line
 1251 - completed ✓ F2E-Line
 - heading back on 2 engines.
 ETA 105 1900.

 1430 - small boat dispatched to bring
 captain's son + friend on board for
 a tour.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2000</u>					Month <u>OCTOBER</u>			Ship <u>TULLY</u>			Cruise I.D. <u>2000-28</u>			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
4	LA02	ROS	0316	BE	67	48 26.32	124 51.34		305		318-330	13		keep sample #25
			0334	EN		48 26.32	124 51.27			300				
14	LA03	CTD	0417	BE	68	48 22.80	124 57.75		112	106				
14	LA04	ROS	0505		69	48 19.37	125 03.96		193		331-340	10		
14	LA05	CTD	0559		70	48 16.10	125 10.55		122	117				
14	LA06	ROS	0654	BE	71	48° 12.71'	125° 17.16'		114	111	341-348	8		
			0706	EN		48° 12.77'	125° 17.14'							
14	LA07	CTD	0755	BE	72	48° 09.32'	125° 23.59'		114	111				a little off station due to fishing boats.
14	LA08	ROS	0854	BE	73	48° 05.77'	125° 30.30'		143	139	349-357	9	JE	
			0909	EN		48° 05.80'	125° 30.39'							
14	LA09	CTD	0954	BE	74	48° 02.35'	125° 36.89		354	352			JE	
			1004	EN		02.37	36.95							
14	JFE7	CTD	1722		75	48° 16.44	124° 15.15		89					
			1724											

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

[illegible]

Cast type:

BOT = otter board
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time