

CRUISE
NUMBER

#9811

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

May 25 - 31, 98

VESSEL

J. P. Tully

PROJECT

La Perouse / El Nino /
Georgia Strait.

Cruise 9811

<u>Date</u>	<u>Time</u>	<u>PDT</u>
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May 25	0700	
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		- Science crew meet at I.O.S.
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John Love, Doug Anderson, Dave Spear,
Leslie Zedner, Phil Lobb +
Tom Suhr

		- load as items in pickup truck, green van and Astrovan
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		- all heavily loaded
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		- 2 of 3 vehicles have nearly flat tires
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		- all require oil, water + gas
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0730		
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		- depart for Gold River
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		- Dave picks up Lane from home enroute
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0930		
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		- coffee break in Parksville
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1300		
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		- lunch in Campbell River
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1500		
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		- arrive at ship
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1530		
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		- crew change complete ship sails for Nootka IG-B
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Date Time PDT

May 25 1830 - on station Nootka TG-B

1836 - sent call ping received strong signal

1837 - sent 07 code for release.
- received - call ping reply #1
- call ping reply #2
- received positive response to release

1855 - all on board - lightly fouled

Switched sensors on 0443 - PRIMARY INST

Old:

Cond Pri: 1763

Sec: 1766

Temp Pri: 2095

Sec: 2142

Now:

Cond Pri: 1729

Sec: 1762

Temp Pri: 2023

Sec: 2038

New Config file: 9811NEW.COM

SECONDARY CTD - 0437

Cond pri 1748

Sec: 1764

Temp pri 2106

Sec: 2062

2029 - deployed Nootka TG-C in 18 m water
corrected at position:

49° 35.100' 126° 33.630'

- remain at anchor in Nootka Sound. allowing new crew to acclimatize and get good sleep
- evening spent at setting up + locating equipment + unpacking

Date Time PDT

May 26

- 0831 - on station E01-Z listening
- no ranges - moving closer
- 0840 - on site above mooring
- range 136, 134, 132 - very close
127 → 114 drifting over site
- 0845 - drifted over site
range. 125, 127, 130, 134
- 0847 - sent ABFH - received positive response
- 0849 - sighted on surface
- mooring heavily fouled down to bottom with shrimp + barnacles + anemones.
 - rotors were free to turn though.
 - preparing mooring for redeployment

1332 - deployed mooring E01-AA in 102 m water corrected depth at position $49^{\circ}17.320'$ $126^{\circ}35.970'$

1340 - proceed to mooring site for E03 in 400 m water

1632 - deployed mooring E03-AA in 396 m water corrected depth at position $49^{\circ}05.780'$ $126^{\circ}56.047'$

- during above operations PTT #20306 was turned on and monitored using the Telonius tester and the Gaudin.
- the Tracker.exe program was started and #20306 was reporting GPS positions
- a gale force front was developing and we are in a good location to launch the buoy for testing.

1708 - moved $\frac{1}{2}$ nm south of E03-AA and deployed the buoy + drogue buoy first under slow way.
Position = $49^{\circ}05.250'$, $126^{\circ}56.090'$

Date Time PDT

May 26 2010 - on station. #1 48° 52.810
127° 23.250
- depth is 2117 m
- sent CDF + range - no response
- sent CDF + ranged 4 more times
- moved
- no response

- on station #2 48° 46.730'
127° 14.350'
- sent CDF + ranged - no response
- sent CDF + ranged - several more times
- no response
2245 - on station #3 48° 52.970'
127° 23.980'

- sent CDF + ranged - no response
- sent CDF + ranged - several more times
- no response

2255 - gave up search - heading for LG08

Note

Thermohelmsograph started

FILE 98110001 21:50 UTC 980527

3 Lure.

Pump fixed by engineering dept
and works without aeration.

Data looks clean.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1998		MAY		TULLY										
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT BONGO	COMMENTS
27	LG08	ROS	0658	BE	1	48 55 37	127 13 45	GPS	2091	2090	1 - 21	21		USED CON FILE 9811NEW
27	LG08	ROS	0730	BO	1	48 55 60	127 13 94	GPS						
27	LG08	ROS		EN	1									
27	ENP8	BONGO	1932	BO		48°49.17'N	128°38.69'W	GPS	2280	150	—	—	2	Intercalibration net tows
27	ENP8	NORPK	2000	BO		48°48.82'N	128°38.80'W	GPS	2059	150	—	—	3	"
27	ENP8	SCOR	2020	BO		48°48.62'N	128°38.83'W	GPS	2080	150	—	—	4	"
27	ENP8	SCOR	2035	BO		48°48.96'N	128°38.65'W	GPS	2528	150	—	—	5	"
27	ENP8	NORPK	2052	BO		48°48.90'N	128°38.64'W	GPS	2528	150	—	—	6	"
27	ENP8	BONGO	2108	BO		48°48.68'N	128°38.46'W	GPS	2531	150	—	—	7	"
28	ENP8	ROS	0115	BE	2	48 48 95	128 39 91	GPS	2526	2500	22 - 24	3		CALIBRATION SALINITY
28	ENP8	ROS	0201	BO	2	48 48 56	128 40 15	GPS						USED CON FILE 9811NEW
28	ENP8	ROS	0250	EN	2	48 47 77	128 40 80	GPS			25			Salinity only
28	LS09	ROS	0740	BE	3	49 15 86	127 47 13	GPS			26 - 47	22		LOOP 0259 UTC
28	LS09	ROS	0819	BO	3	49 15 58	127 47 34							Loop #48
28	LS09	ROS	0916	EN	3	49 15 42	127 48 02							07:42 UTC
29	CPE2	CTD		BE	4									USED CON FILE 9811NEW
	CPE2	CTD	0156	BO	4	50 42 86	128 40 13							
	CPE2	CTD	0202	EN	4	50 42 87	128 40 10							8/9 Bongo 8+9 complete
														120m and 50m

CAST TYPE - BOT - bottle 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

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

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

Date Time PDT

May 27 0815 - on station ENP8-A.
- sent XPMV - no response
- sent CDF - ranges 2519
2520
2528
2531

- moving closer - lost engine power
during ~~flue~~ flue

- ranges 2510
2511

0844 - sent BEFG

Range 2525 not rising

app. 0846/47 - sent BEFG Again
Positive Response
Ranges indicate rising
- top floats sighted on surface
- all floats on surface

0924

1125 - all on board + cleaned

- start preparation for redeployment

1215 - ship assigned to do plankton net
1415 in 1st comparison tows by
Isabelle Beaudet

- 6 vertical tows to 50m using bongo, SCOR,
and NORPAC nets

- Clean samples, fairly small, composed mainly
of copepods and a few amphipods

1706 - launched mooring ENP8-B in 2528 m
water corrected for draft and speed of sound
at positions: 48° 48.910' } lab.
128° 38.600' }

48° 48.908' } bridge 1702 PDT
128° 38.594' }

1718 submerge position 48° 49.124' 1718 PDT
128° 37.742'

- observed top buoys submerge stayed on station
15 min. to see if anything rose up. ~~nothing up~~

1735 - moved to station P8 (LiveP station) for CTD
cast

- Monitored Gonio for ENP8 witness buoy nothing came up

David Welch Fish Tags deployed on ENP8-B

Wildlife Computers CEFAS

at app. 15m # 98-040 1616
98-041 1425

at app. 42m # 98-042 1426
98-043 1428

at app. 75m # 98-044 1449
98-045 1451

See notes A, B, C. on mooring log and
photographs taken for details

Date Time (PDT)

- May 28 0800 - on station BP1-Z for recovery, service + redeployment.
- adjusted position
- 0805 - 206, 205, 227, 229
- maneuvered
- 0807 - ranges 227, 229.
- sent ABDAH - received positive response.
- 0809 - sighted on surface

Comfile - 9811NEW.CON IN ERROR

WRONG COEFFICIENTS USED FOR CONO SENSOR 1762.

NEW CON FILE: 9811NEW1.CON

WITH CON FILE 9811NEW1.CON, SENSOR DIFFERENCES

ARE ABOUT 0.006 IN SALINITY

- recovered and cleaning up on deck
 - prep. for redeployment.
 - mooring heavily fouled top to bottom.
- 1051 - deployed BP1-AA in 100 m at (corrected)
position: $50^{\circ} 03.720'$
 $127^{\circ} 53.530'$

- depart for Quatsino Tide Gauge.

1335 - on station Quatsino TCG - B for recovery.

1337 - sent call ping + received response

1340 - sent code 02 - no response mooring not surfaced

- sent code 02 - same

- noticed outgoing signal not correct

checked battery voltage in deck unit $\Rightarrow$ too low

- plugged deck unit into 110 volt supply and outgoing signal strength improved

1400-1430 - sent code 02 - received correct response

- mooring surfaced

- very lightly fouled mostly juvenile barnacles.

- prep new mooring on deck

1516 - deployed Quatsino TCG - C in 18.5 m depth (corrected) at position:

$50^{\circ} 29.460'$

$128^{\circ} 02.67'$

- head for CPEZ Bongo Station in Scot Islands.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1998		MAY		TULLY		LA PAROUSE 27								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
29	BP08	ROS	0811	BE	5	49 48 72	128 16 85	GPS			49 -70	22.		
29	BP08	ROS	0900	Bo	5			GPS	2071					
29	BP08	ROS		EN	5			GPS						Loop # 71 @ 10:14 UTC
30	PLA2	CTD	0314	BE	6	48 22 75'	126 04 15	GPS	335					
30	PLA2	CTD	0321	Bo	6									
30	PLA2	CTD	0326	EN	6									
30	EFF11	ROS	0943	BE	7									
30	EFF11	ROS	0946	Bo	7						72-77	6.		
30	EFF11	ROS	0952	EN	7	48 59 23	125 11 17							
30	EFF10	CTD	1010	BE	8	48 59 90								
30	EFF10	CTD	1013	Bo	8				75					
30	EFF10	CTD	1017	EN	8	48 59 91	125 11 28							
30	EFF09	ROS	1031	BE	9	49 00 38	125 10 71		87		78-83	6.		
30	EFF09	ROS	1033	Bo	9	49 00 39	125 10 70							
30	EFF09	ROS	1041	EN	9									
30	EFF07	CTD	1105	BE	10	49 01 28	125 09 36		123					
30	EFF07	CTD	1107	Bo	10									
30	EFF07	CTD	1110	EN	10	49 1 29	125 9 36							

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifterUSW -
sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

Date Time PDT

May 29

0715

- 05 49° 16.775'

127° 33.195'

- sent CDF - ranged - no response.

0735

- 05 49° 16.490'

127° 33.258'

- sent CDF - ranged - no response.

0745

- 05 49° 16.060'

127° 33.055'

- sent CDF - ranged - no response

0752

- 49 15.446

127 32.590

- sent CDF - Ranged - no response

0800

- 49 14.937

127 32.253

- sent CDF - Ranged - no response

0808

- 49 14.500

127 31.900

- sent CDF - Ranged - no response

0815

- 49 14.037

127 31.520

- sent CDF - Ranged - no response

0822

- 49 13.470

127 31.146

- sent CDF - Ranged - no response

0829

- 49 12.958

127 30.761

- sent CDF - Ranged - no response

0833

- 49 12.531

- 127 30.468

- sent CDF - Ranged - no response

0839

- 49 12.048

- 127 30.133

- sent CDF - Ranged - no response

0847

- 49 11.415

127 29.650

- sent CDF - Ranged - no response

0853

- 49 11.013

127 29.386

- sent CDF - Ranged - no response

Depth 1830 m

Date Time (PDT)

May 29 0901

- 49° 10.493'
127° 29.005'
- sent CDF - Ranged - no response

0906

- 49° 10.037'
127° 28.695'
- sent CDF - Ranged - no response

0916

- 49° 09.000'
127° 28.222'
- sent CDF - Ranged - no response

0930

- 49° 07.898'
127° 27.695'
- sent CDF - ranged - no response

0937

- 49° 07.026'
127° 27.191'
- sent CDF - ranged - no response

0955

- 49° 05.958'
127° 25.496'
- sent CDF - ranged - no response

1007

- 49° 05.021'
127° 25.098'
- sent CDF - ranged - no response

1023

- 49° 03.968'
127° 25.740'
- sent CDF - ranged - no response

1030

- 49° 03.075'
127° 26.195'
- sent CDF - ranged - no response

1047

- 49° 01.963'
127° 26.683'
- sent CDF - ranged - no response

1100

- 49° 00.995'
127° 27.205'
- sent CDF - ranged - no response

End Search

- going to recover drifting
buoy #20306

- unable to access Argos into from ship by
Telnet - Danilo is providing information from shore.

Date Time PDT

May 29 1440 - Recovered PTT # 20306 at position $48^{\circ} 47.680'$ $126^{\circ} 42.790'$

- recovery completed within $16-3\frac{1}{4}$ hour with the aid of the most recent Arpos + GPS positions from the buoy provided by Dario and the Cronio DF

- while the Cronio helped the buoy was sighted easily using just Arpos position + visual search

- the 2 red floats are very visible as compared to the other brand of drifter.

- the system was easily grappled between the buoys then towed for a short duration by drifting vessel allowing the drogue to rise to surface + be recovered by hand.

- NB the top + bottom hoops of the drogue were correct but the in-between hoops had collapsed and were folded flat (as they were brought on board?)

- the system seems to be ballasted correctly.

- PTT # 20306 was shut off.

1500

- head for A2-AA for recovery and deployment of A2-AA-2

- translated data for A2-AA indicates that mooring was pulled down and parted off within $1\frac{1}{2}$ hour = 1 sample interval

- instrument pressure reading went down several times its expected pressure

- speed dropped from normal indicating there was no tow involved and bottom of mooring should be on site.

Date Time PDT

May 29 1740

- OS A2-AA

- ranging } - no responses to multiple ranges

1750

- sent ABC# - no response
- sent several times "
- more ranges no response

1815

- ended search
- ranged sent release code and listened with pinger during the whole period 1750-1815 - directly over site without success
- assume mooring is gone

1815

- move to deploy new A2-AA-2 (mooring)

1844

- deployed mooring A2-AA-2 in 502 m (corrected) depth at position:
48° 29.086'
126° 13.100'

1855 - OS

48° 29.500'
126° 11.620'

} position reported by Hope Bay where it sighted A2-AA drifting
- ranged and listened with pinger receiver without success

1905

- head for Bongo station PL42 for Net Tow and (TI)

DAILY LOG

OCEAN PHYSICS

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1998			MAY		JP TULLY		9811								
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30	EFF05	ROS	1129	BE	11	49 02 56	125 09 05								
30	EFF05	ROS	1136	BO	11	49 02 57	125 09 06				84-94	11			
30	EFF05	ROS	1149	EN	11	49 2 60	125 09 13								
30	EFF03	ROS	1215	BE	12										
30	EFF03	ROS	1222	BO	12	49 4 23	125 9 38		123		95-101	7			
30	EFF03	ROS	1230	EN	12	49 4 21	125 9 45								
30	EFF01	CTD	1301	BE	13	49 05 58	125 11 64								
30	EFF01	CTD		BO	13										
30	EFF01	CTD	1305	EN	13	49 05 49	125 11 60		32m						
30	LA09	CTD	2023	BE	14	48° 03.07'	125 37.04'		359m					unable to get on station because of	
30	LA09	CTD	2030	BO	14									fish boats	
30	LA09	CTD		EN	14										
30	LA08	ROS	2127	BE	15	48° 5.82'	125° 30.71'		142m		102-109	8			
30	LA08	ROS	2131	BO	15										
30	LA08	ROS	2141	EN	15										
30	LA07	CTD	2229	BE	16	48° 09.41'	125° 24.00'		114m						
30	LA07	CTD	2233	BO	16										
30	LA07	CTD	2238	EN	16										

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ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
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POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

Date Time (PDT)

May 31 0815

- arrive L.O.S. to pick up Mary + sediment traps
- Mary is already on jetty
- customs were cleared.
- Mary + equipment loaded
- Leslic, Doug + Phil leave ship

0915 - depart L.O.S. for GSCM3

1230 - complete CTD and collect filter water for sediment traps.

1300 - on station GSCM3-G for recovery + servicing

- rosette sampling underway
- range for mooring - no response

- sent BDH

- ranges 788 790 793 - too far
- move directly over station.
- on station.

1315

- range 378, 375, 373
- launched small boat to tension mooring as it rises to avoid tangles and turning the traps upside down.
- range 403, 405

- 1325 - sent BCDH - received positive response
- 1336 - sighted on surface and small boat is pulling on top buoys as rest of mooring rises

app. 1400 - all on board with a tangle at bottom end

- none of the sediment traps were up-ended, an important consideration because last sample in each is not yet closed (recovery is 1 day early).

1710 - launched GSCM3-H in 343.5 m (corrected)
water depth at:
49° 06.090'
123° 29.723'

1720 - head for L.O.S.

app. 2100 - arrive at L.O.S.

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30	LA06	ROS	2320	BE	17	48 12 91	125 17 15		112		110-116	7		
30	LA06	ROS	2323	BO	17	48 12 99	125 17 09							
30	LA06	ROS	2333	EN	17	48 13 15	125 17 05							
31	LA05	CTD	0013	BE	18	48 16 25	125 10 62							
31	LA05	CTD	0017	BO	18	48 16 31	125 10 57			111				
31	LA05	CTD	0023	EN	18									
31	LA04	ROS	01	BE	19	48 19 66	125 4 01				117-126	10		
31	LA04	ROS	0118	BO	19	48 19 66	125 04 01		1	185				Loop @ 01:14
31	LA04	ROS	0134	EN	19	48 19 90	125 3 86							
31	LA03	CTD		BE	20									
31	LA03	CTD	0223	BO	20	48 23 02	124 57 79							
31	LA03	CTD	0230	EN	20									
31	LA02	ROS	0311	BE	21	48° 26.34'	124° 51.49'			304m	129-139	13		
31	LA02	ROS	0317	BO	21	48° 26.39'	124° 51.49'							
31	LA02	ROS	0329	EN	21	48° 26.37'	124° 51.41'							
31	LA01	ROS	0415	BE	22	48° 29.13'	124° 44.62'			272	140-151	12		
31	LA01	ROS	0422	BO	22	48° 29.08'	124° 44.62'							
31	LA01	ROS	0435	EN	22	48° 28.95'	124° 44.66'							

CAST TYPE -

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ctd
mooringROS -
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net haul
drifter

USW - sea water loop

TIME CODE -

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messenger release
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POSITION CODE -

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DAILY LOG

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[illegible]

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LOR -	LORAN