

# DAILY LOG BOOK

MISSION  
NUMBER

2005-23

DATE:

From: Sep. 30 to: Oct. 10 2005

VESSEL:

J. P. Tully

PROJECT:

La Perouse, ECOHAB, PERD, Aquaculture  
and more.

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

Captain: \_\_\_\_\_  
 Second Officer: \_\_\_\_\_  
 First Officer: \_\_\_\_\_  
 Third Officer: \_\_\_\_\_

Mission Participants / Agencies:

Scientific Personnel: \_\_\_\_\_  
 Name \_\_\_\_\_  
 Party Chief: \_\_\_\_\_  
 Wetland \_\_\_\_\_  
 City: \_\_\_\_\_

**Second leg of Mission:**  
Name \_\_\_\_\_ Party Chief: \_\_\_\_\_  
\_\_\_\_\_ Watch Cabin \_\_\_\_\_ Name \_\_\_\_\_ Watch Cabin \_\_\_\_\_

### Data logging computer:

Data acquisition program: Seasave Win32 Ver 3.34  
 CTD deck unit make: Sea-Bird model: 11plus serial number: 0508  
 Primary CTD

## Primary CTD

|                                              |                         |                    |                         |                       |                         |
|----------------------------------------------|-------------------------|--------------------|-------------------------|-----------------------|-------------------------|
| <b>Make:</b>                                 | <u>Seabird</u>          | <b>model:</b>      | <u>911plus</u>          | <b>serial number:</b> | <u>0443</u>             |
| <b>Primary temperature serial number:</b>    | <u>41484</u>            | <u>19-Mar-05</u>   |                         |                       |                         |
| <b>Primary conductivity serial number:</b>   | <u>3038</u>             | <u>03-Mar-05</u>   |                         |                       |                         |
| <b>Secondary temperature serial number:</b>  | <u>2106</u>             | <u>08-Jul-05</u>   |                         |                       |                         |
| <b>Secondary conductivity serial number:</b> | <u>1729</u>             | <u>12-Jul-05</u>   |                         |                       |                         |
| <b>Transmissometer:</b>                      | <u>wetlabs</u>          | <b>Model:</b>      | <u>CSTA#</u>            | s/n:                  | <u>498 DR</u>           |
| <b>Fluorometer:</b>                          | <u>Model Seapoint</u>   | <b>Cable gain:</b> | <u>10X</u>              | s/n:                  | <u>2356</u>             |
| <b>Oxygen sensor:</b>                        | <u>Seabird</u>          | <b>Model:</b>      | <u>SPE H3</u>           | s/n:                  | <u>0766</u>             |
| <b>PAR sensor:</b>                           | <u>                </u> | <b>Model:</b>      | <u>                </u> | s/n:                  | <u>                </u> |
| <b>Other sensors:</b>                        | <u>AHimeter</u>         |                    |                         | s/n:                  | <u>                </u> |
| <b>Other sensors:</b>                        | <u>                </u> |                    |                         | s/n:                  | <u>                </u> |
| <b>Other sensors:</b>                        | <u>                </u> |                    |                         | s/n:                  | <u>                </u> |
| <b>Other sensors:</b>                        | <u>                </u> |                    |                         | s/n:                  | <u>                </u> |
| <b>Pump?</b>                                 | <u>                </u> |                    |                         |                       | <u>P, S or NO pump?</u> |
| <b>CTD</b>                                   | <u>                </u> |                    |                         |                       | <u>P, S or NO pump?</u> |

Make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

Primary temperature serial number: \_\_\_\_\_

Primary conductivity serial number: \_\_\_\_\_

Secondary temperature serial number: \_\_\_\_\_

Secondary conductivity serial number: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Oxygen sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

PAR sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

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Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

CTD calibration bottle location (height above CTD in metres):

Date Time PDT

- Sep. 30. 0830 - science crew complete loading + set up  
- delay in CTD Acquisition loading due to Doug. A. returning from SBE course.  
- small panic when instruments got stuck in elevator at I.O.S. during loading  
- delayed sailing until 1400.  
- needed to borrow a computer to run new label program - must have XP system. - our 2nd acquisition computer is Win 98.
- 1400 - depart I.O.S. for mooring AS04  
- on board. Marty Daucelar, Jane Eert, Sue Geier, Jim Johnson, Rob Reed, Lucius Perreault, Dave Spear, Scott Rose, Tom Juhász  
- no time for CTD test cast - will lose daylight to get to mooring.
- 1810 - on site AS04-D for recovery.  
- very noisy ranges on 200 = 124, 126, 129 m.  
- ranges on 466 = similar.  
- moved off to release position.
- 1814 - range 183 sent BCEH. - received release response.
- 1816 - sighted on surface.  
- recovered without incident.  
- head for CTD's on JF3-1 to 7 Line.

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>October</i> |              |            |           | Year <i>2005</i> |               |              | Ship <i>JP Tully</i> |            |              |           | Cruise ID <i>2005-23</i> |             |               |                |                 |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|----------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|-----------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position             |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments        |
|                      |              |            |           |                  |               |              | Latitude             | Longitude  |              |           |                          |             |               |                |                 |
| 01                   | LOOP 1       | 0312       |           | LOOP 1           |               |              | 48 19 95             | 123 49 50  |              |           |                          | 1           | DA            |                | LOOP - SAL ONLY |
| 01                   | JF31         | 0315       | BE        | ROS              |               | 1            | 48 21 58             | 123 57 60  | 118          |           |                          |             |               |                |                 |
|                      | "            | 0354       | BO        |                  |               | 1            | 48 21 58             | 123 57 60  |              | 108       | —                        | 0           | DA/LP/MD      | ✓              |                 |
|                      | "            | 0357       | EN        |                  |               | 1            | 48 21 59             | 123 57 62  |              |           |                          |             |               |                |                 |
| 01                   | JF32         | 0420       | BE        | ROS              |               | 2            | 48 20 80             | 123 58 40  | 137          |           | —                        | 0           | MD/LP/DA      | ✓              |                 |
|                      |              | 0423       | BO        |                  |               |              | 48 20 80             | 123 58 40  |              | 127       |                          |             |               |                |                 |
|                      |              | 0426       | EN        |                  |               |              | 48 20 80             | 123 58 40  |              |           |                          |             |               |                |                 |
| 01                   | JF33         | 454        | BE        | ROS              |               | 3            | 48 19 17             | 123 59 18  | 175          |           |                          |             |               | ✓              |                 |
|                      |              | 500        | BO        |                  |               |              | 48 19 205            | 123 59 220 |              | 165       | 1                        | 1           | MD/LP/DA      |                |                 |
|                      |              | 505        | EN        |                  |               |              | 48 19 214            | 123 59 300 |              |           |                          |             |               |                |                 |
|                      | JF34         | 0528       | BE        | ROS              |               | 4            | 48 17 73             | 124 00 04  | 189          |           |                          |             |               |                |                 |
|                      |              | 0534       | BO        |                  |               |              | 48 17 73             | 124 00 07  |              |           | 2                        | 1           | MD/LP/DA      | ✓              |                 |
|                      |              | 0539       | EN        |                  |               |              | 48 17 74             | 124 00 09  |              |           |                          |             |               |                |                 |
| 01                   | JF35         | 0602       | BE        | ROS              |               | 5            | 48 16 27             | 124 00 79  | 182          |           |                          |             |               |                |                 |
|                      |              | 0607       | BO        |                  |               |              | 48 16 29             | 124 00 82  |              | 172       | 3                        | 1           | MD/LP/DA      | ✓              |                 |
|                      |              | 0613       | EN        |                  |               |              | 48 16 28             | 124 00 82  |              |           |                          |             |               |                |                 |
| 01                   | JF36         | 0641       | BE        |                  |               | 6            | 48 14 32             | 124 01 50  | 145          |           |                          | 0           | MD/DA         |                |                 |
|                      |              | 0649       | BO        |                  |               |              | 48 14 26             | 124 01 52  |              | 136       | —                        |             |               | ✓              |                 |
|                      |              | 0652       | EN        |                  |               |              | 48 14 26             | 124 01 51  |              |           |                          |             |               |                |                 |

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  
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DE = deployment time  
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Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily\_log\_book.doc

Date    Time    PDT

Oct. 1

0730

- on station JF2C for recovery - except we are on the wrong station. The science request was to be at JF2C the bridge night orders incorrectly put the ship on ASD4
- we have a 3 hr. steam to get to JF2C
- the external battery pack on ASD4 flooded and the interconnect cable was chafed and flooded too.
  - the flooding occurred after 3rd day of deployment through one of the communication bulk head connectors.
  - we have a spare battery case but no spare cable.
  - we will put an internal battery in this instrument. - requires compass swing.
- on our return steam we check RDI compass check + calibration for interest
  - performed several compass checks on ship (calm conditions) battery in
    - $7.7^\circ$   $5.7^\circ$   $5.5^\circ$   $5.3^\circ$   $5.4^\circ$   $5.5^\circ$  being very rough on instrument - erratic rotation, reverse rotation, fast to excess rotation.
    - compass checks were within spec + repeatable regardless of what we did to it.
  - performed a calibration ship board and got  $\pm 1.3^\circ$  - this means (battery in) the instrument could record + account for its present + local abnormalities within  $1.3^\circ$

\* - will continue further tests ashore when RDI is recalibrated for deployment.

\* - under same conditions, with battery removed, compass check =  $7.7^\circ$  this is not good according to the compass check which is itself not

# DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month OCT |              |            |           | Year 2005 |               |              | Ship TULLY |            |              |           | Cruise ID 2005-23 |             |               |                |                                         |
|-----------|--------------|------------|-----------|-----------|---------------|--------------|------------|------------|--------------|-----------|-------------------|-------------|---------------|----------------|-----------------------------------------|
| Day       | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position   |            | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                                |
|           |              |            |           |           |               |              | Latitude   | Longitude  |              |           |                   |             |               |                |                                         |
| 01        | LOOP2        | 0702       | BE        | USW       |               | LOOP2        | 48 14 27   | 124 01 37  |              |           | LOOP2             |             | DA            |                | LOOP SHL ONLY                           |
| 02        | LOOP3        | 0315       | BE        | USW       |               | LOOP3        | 48 24 74   | 124 10 99  |              |           | LOOP3             |             | DA            |                |                                         |
| 02        | JF2-1        | 0336       | BE        | ROS       |               | 7            | 48 24 98   | 124 12 04  | 115          |           |                   |             |               |                | Named JF2-2 in header                   |
|           |              | 0340       | BO        |           |               |              | 48 24 96   | 124 12 08  |              | 106       | —                 | 0           | MD/DA         | ✓              |                                         |
|           |              | 0343       | EN        |           |               |              | 48 24 98   | 124 12 09  |              |           |                   |             |               |                |                                         |
| 02        | JF2-2        | 0404       | BE        | ROS       |               | 8            | 48 24 19   | 124 13 46  | 170          |           |                   |             |               |                |                                         |
|           |              | 0410       | BO        |           |               |              | 48 24 25   | 124 13 45  |              | 160       | 4                 | 1           | MD/DA         | ✓              |                                         |
|           |              | 0416       | EN        |           |               |              | 48 24 24   | 124 13 44  |              |           |                   |             |               |                |                                         |
| 02        | JF2-3        | 0440       | BE        | ROS       |               | 9            | 48 22 72   | 124 14 30  | 193          |           |                   |             |               |                |                                         |
|           |              | 0447       | BO        |           |               |              | 48 22 82   | 124 14 46  |              | 181       | 5                 | 1           | MD/DA         | ✓              |                                         |
|           |              | 0452       | EN        |           |               |              | 48 22 90   | 124 14 37  |              |           |                   |             |               |                |                                         |
| 2         | JFE-4        | 0522       | BE        | ROS       |               | 10           | 48 21 31   | 124 14 99  | 222          |           |                   |             |               |                |                                         |
|           |              | 0527       | BO        |           |               |              | 48 21 29   | 124 15 01  |              | 213       | 6                 | 1           | MD/DA         | —              | Sample taken in slightly gradient area. |
|           |              | 0533       | EN        |           |               |              | 48 21 28   | 124 15 04  |              |           |                   |             |               |                |                                         |
| 2         | JF2-5        | 0558       | BE        | ROS       |               | 11           | 48 19 76   | 124 15 908 | 209          |           | 7                 | 1           | MD/DA         | ✓              | DID NOT TRIP                            |
|           |              | 0601       | BO        |           |               |              | 48 19 735  | 124 15 881 |              | 199       |                   |             |               |                |                                         |
|           |              | 0607       | EN        |           |               |              | 48 19 764  | 124 15 851 |              |           |                   |             |               |                |                                         |
|           |              |            |           |           |               |              |            |            |              |           |                   |             |               |                |                                         |
|           |              |            |           |           |               |              |            |            |              |           |                   |             |               |                |                                         |

Cast type:

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bottle firing method:

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Date      Time      PDT

- Oct. 1      1045
- on station JF2C-G for recovery
  - ranges 146, 147 m wrong speed of sound setting
  - ranges 332 - 340 m drifting away
- 1051
- sent ADEF - received positive response
  - did not rise
  - ranges 334 - 348 as we stand by
  - ranges 325 - 324 as started drifting closer
  - ranges 302 - 304 - not rising
  - sent ADEF several times - with same result
  - sent CDFG then ADEF - " " "
  - ranges 320 327 309 312 not rising
  - sent ADEF - same
  - multiple repeats of arm + release 297 300 ranges
- 1107
- " " sighted on surface.
  - recovered without incident.
- 1330
- steam to AS04 for deployment.
  - launched rubber boat with Dave + Rob to perform RDI WH300 compass calibration and check

## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <i>OCT</i> |              |            |           | Year <i>2005</i> |               |              |           | Ship <i>TULLY</i> |              |           |                | Cruise ID <i>2005-23</i> |               |                |                                                                          |
|------------------|--------------|------------|-----------|------------------|---------------|--------------|-----------|-------------------|--------------|-----------|----------------|--------------------------|---------------|----------------|--------------------------------------------------------------------------|
| Day              | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position  |                   | Bottom Depth | Max Depth | Sample Numbers | #of Bottles              | Watch Keepers | Trans. Cleaned | Comments                                                                 |
|                  |              |            |           |                  |               |              | Latitude  | Longitude         |              |           |                |                          |               |                |                                                                          |
| 02               | JF2-6        | 0630       | BE        | ROS              |               | 12           | 48 18 232 | 124 16 710        | 170          |           |                |                          |               |                | BEFORE CMST latch assembly was rinsed with salt water & then fresh water |
|                  |              | 0634       | BO        |                  |               |              | 48 18 262 | 124 16 686        |              | 160       | 7              | 1                        | MD/LP DA      |                |                                                                          |
|                  |              | 0639       | EN        |                  |               |              | 48 18 246 | 124 16 652        |              |           |                |                          |               |                |                                                                          |
| 02               | Loop4        | 0648       |           | USW              |               | Loop4        | 48 17 44  | 124 17 10         |              |           | Loop4          |                          | JE            |                |                                                                          |
| 02               | JF2-7        | 0701       | BE        | CTD              |               | 13           | 48 16.71  | 124 17.46         | 70           |           | /              | 0                        | JE/RR/312     | ✓              | weight hook latch bent - had to recover 2nd wire.                        |
|                  |              | 0703       | BO        |                  |               |              | 48 16.71  | 124 17.49         |              | 62        |                |                          |               |                |                                                                          |
|                  |              | 0705       | EN        |                  |               |              | 48 16.72  | 124 17.51         |              |           |                |                          |               |                |                                                                          |
| 02               | JF1-7        | 0813       | BE        | CTD              |               | 14           | 48 21.00  | 124 29.01         | 50           |           | /              | 0                        | JE/RR/SR      | ✓              | file header says JFE7 not JF2-7                                          |
|                  |              | 0817       | EN        |                  |               |              | 48 21.01  | 124 29.00         |              | 42        |                |                          |               |                |                                                                          |
| 02               | JF1-6        | 0839       | BE        | ROS              | US            | 15           | 48 22.49  | 124 29.23         | 120          |           | 8              | 1                        | JE/RR/SR      | ✓              | sal cal @ 114 m                                                          |
|                  |              | 0842       | BO        |                  |               |              | 48 22.51  | 124 29.26         |              | 114       |                |                          |               |                | stopped @ 90m on upcast                                                  |
|                  |              | 0848       | EN        |                  |               |              | 48 22.47  | 124 29.12         |              |           |                |                          |               |                | to adjust wire angle.                                                    |
| 02               | JF1-5        | 0910       | BE        | ROS              | US            | 16           | 48 24.03  | 124 28.39         | 214          |           | 9              | 1                        | JE/RR/SR      | ✓              | sal cal @ 200m                                                           |
|                  |              | 0915       | BO        |                  |               |              | 48 24.05  | 124 28.50         |              | 207       |                |                          |               |                |                                                                          |
|                  |              | 0921       | EN        |                  |               |              | 48 24.07  | 124 28.57         |              |           |                |                          |               |                |                                                                          |

Cast type:

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bottle firing method:

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

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## Date Time PDT.

Oct. 1 1651

- launched AS04-E at  $48^{\circ}17.967$   $123^{\circ}22.551'$   
in 116 m datum water.

- head for JF2C for deployment

- yet another download gave us same result.

- conferred with Rick decided to redeploy with only the 85mb card in it.

- deployment set for end May 2006.

- have problems with downloaded data

- appears to be 2 x first half of cruise

- called Steve

- called RDI.

- found out data is on SanDisk cards which could be read directly. These proved to be unformatted. <sup>85mb</sup> <sup>10mb</sup> <sub>not computer accessible</sub> This time got everything except last

- downloaded again through instrument this time got everything except last 3 days.

- planned mooring deployment cancelled until problem identified

- complete CTD's JF2 and JF1 Line

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| Month <u>OCTOBER</u> |              |            |           | Year <u>2005</u> |               |              | Ship <u>TULLY</u> |           |              |           | Cruise ID <u>2005-23</u> |             |               |                |                       |
|----------------------|--------------|------------|-----------|------------------|---------------|--------------|-------------------|-----------|--------------|-----------|--------------------------|-------------|---------------|----------------|-----------------------|
| Day                  | Station Name | Time (UTC) | Time Code | Cast Type        | Firing Method | Event Number | Position          |           | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments              |
|                      |              |            |           |                  |               |              | Latitude          | Longitude |              |           |                          |             |               |                |                       |
| 02                   | JF1-4        | 0944       | BE        | ROS              | US            | 17           | 48 25.52          | 124 27.52 | 232          |           | 10                       | 1           | JE/KR/SR      | ✓              | sal cal @ 225m        |
|                      |              | 0949       | BO        |                  |               |              | 48 25.52          | 124 27.54 |              | 225       |                          |             |               |                |                       |
|                      |              | 0952       | EN        |                  |               |              | 48 25.52          | 124 27.56 |              |           |                          |             |               |                |                       |
| 02                   | JF1-3        | 1015       | BE        | ROS              | US            | 18           | 48 27.06          | 124 26.70 | 198          |           | 11                       | 1           | JE/KR/SR      | ✓              | sal cal @ 120m        |
|                      |              | 1019       | BO        |                  |               |              | 48 27.08          | 124 26.71 |              | 190       |                          |             |               |                |                       |
|                      |              | 1023       | EN        |                  |               |              | 48 27.08          | 124 26.72 |              |           |                          |             |               |                |                       |
| 02                   | JF1-2        | 1044       | BE        | ROS              | US            | 19           | 48 28.52          | 124 25.90 | 174          |           | 12                       | 1           | JE/KR/SR      | ✓              | sal cal @ 167m        |
|                      |              | 1048       | BO        |                  |               |              | 48 28.53          | 124 25.91 |              | 167       |                          |             |               |                | interesting layers in |
|                      |              | 1051       | EN        |                  |               |              | 48 28.52          | 124 25.93 |              |           |                          |             |               |                | xmissometer signal    |
| 02                   | JF1-1        | 1111       | BE        | CTD              |               | 20           | 48 30.00          | 124 25.02 | 97           |           | —                        | 0           | JE/RR/SR      | ✓              | Washed pylon w/       |
|                      |              | 1114       | BO        |                  |               |              | 48 29.98          | 124 25.05 |              | 90        |                          |             |               |                | sippy water than      |
|                      |              | 1116       | EN        |                  |               |              | 48 29.97          | 124 25.05 |              |           |                          |             |               |                | fresh.                |
| G2                   | LOOP 5       | 2100       | BE        | USW              |               | —            | 48 17.10          | 125 24.69 | —            | —         | —                        | 1           | DA            |                | LOOP 5 - SAL ONLY     |
| 02                   | LOOP 6       | 2255       | BE        | USW              |               | —            | 48 18.31          | 125 26.59 |              |           |                          | 1           | JE            |                | " 6 "                 |
|                      |              |            |           |                  |               |              |                   |           |              |           |                          |             |               |                |                       |
|                      |              |            |           |                  |               |              |                   |           |              |           |                          |             |               |                |                       |
|                      |              |            |           |                  |               |              |                   |           |              |           |                          |             |               |                |                       |
|                      |              |            |           |                  |               |              |                   |           |              |           |                          |             |               |                |                       |

Cast type:

BOT = bottle cast, no CTD  
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ROS = Rosette plus CTD

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bottle firing method:  
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Date      Time    PDT

Oct. 2

0730

- on station EH1-C for recovery.
- rain overcast small white caps

0802

- sent release code twice without response.

0805

- sent release code again got "rec'd" "exec'd"
- ranges indicated mooring is free

0900

0930

- all on board - small difficulties with set up + capture
- Seacatch hook is best for stopping off.
- wash up finished except for busy bottom.

- heading for EH3.

- 25 knots developing gale.

1240

- arrive at EH3 app. 1-2 m seas. 25 knot winds SE
- hove to for app. 2 hrs. - weather seems to be going down.

1430

- weather much improved wind switched W. 15 knots sea down 1m.
- approached busy.

1505

- sent release code "rec'd" "exec'd"

1615

- all on board washing down. and heading for LA1 CTD's.

## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month <u>October</u> |              |            | Year <u>2005</u> |           |               |              | Ship <u>TULLY</u> |            |              |           | Cruise ID <u>2005-23</u> |             |               |                |                                                    |
|----------------------|--------------|------------|------------------|-----------|---------------|--------------|-------------------|------------|--------------|-----------|--------------------------|-------------|---------------|----------------|----------------------------------------------------|
| Day                  | Station Name | Time (UTC) | Time Code        | Cast Type | Firing Method | Event Number | Position          |            | Bottom Depth | Max Depth | Sample Numbers           | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                                           |
|                      |              |            |                  |           |               |              | Latitude          | Longitude  |              |           |                          |             |               |                |                                                    |
| 03                   | LA01         | 0223       | BE               | CTD       | ✓             | 21           | 48 29.28          | 124 43.71  | 264          |           | ✓                        | 0           | JE/RR/SR      | ✓              | odd spikes in sal                                  |
|                      |              | 0231       | BO               |           |               |              | 48 29.27          | 124 43.73  |              | 255       |                          |             |               |                | @ 97m on downcast                                  |
|                      |              | 0237       | EN               |           |               |              | 48 29.26          | 124 43.76  |              |           |                          |             |               |                | @ 70 on upcast.                                    |
| 03                   | LOOP7        | 0310       | BE               | USW       |               | LOOP7        | 48 27.32          | 124 49.09  | —            | —         | LOOP7                    | 1           | DA            |                | LOOP7 - SAL ONLY                                   |
| 03                   | LA02         | 0330       | BE               | ROS       |               | 22           | 48 26.25          | 124 51.41  | 306          |           |                          |             |               |                | FLUSHED COHO CELL WITH TRITON SOL'N / RINSED PYLON |
|                      |              | 0334       | BO               |           |               |              | 48 26.27          | 124 51.349 |              | 296       | 13-25                    | 13          | MD/LP/DA      | ✓              | stopped @ 186 for radio change                     |
|                      |              | 0352       | EN               |           |               |              | 48 26.538         | 124 51.311 |              |           |                          |             |               |                |                                                    |
| 03                   | LA03         | 0438       | BE               | ROS       |               | 23           | 48 22.87          | 124 57.66  | 112          |           | —                        |             | MD/LP/DA      | ✓              |                                                    |
|                      |              | 0441       | BO               |           |               |              | 48 22.88          | 124 57.63  |              | 102       |                          |             |               |                | fresh H <sub>2</sub> O over pylon                  |
| 03                   |              | 0443       | EN               |           |               |              | 48 22.88          | 124 57.60  | 192          |           |                          |             |               | ✓              | AFTER CAST.                                        |
| 03                   | LA04         | 0532       | BE               | ROS       |               | 24           | 48 19.33          | 125 04.19  | 192          | 182       | 26-35                    |             | LP/DA/MD      |                |                                                    |
|                      |              | 0537       | BO               |           |               |              | 48 19.34          | 125 04.20  |              | 182       |                          |             |               |                |                                                    |
|                      |              | 549        | EN               |           |               |              | 48 19.315         | 125 04.19  |              |           |                          |             |               | ✓              |                                                    |
| 03                   | LA05         | 0634       | BE               | ROS       |               | 25           | 48 16.118         | 125 10.686 | 122          |           |                          |             |               |                |                                                    |
|                      |              | 0637       | BO               |           |               |              | 48 16.117         | 125 10.691 |              | 112       |                          |             |               |                |                                                    |
|                      |              | 0641       | EN               |           |               |              | 48 16.11          | 125 10.71  |              |           |                          |             |               |                |                                                    |
| 03                   | LA06         | 0730       | BE               | ROS       | VS            | 26           | 48 12.70          | 125 17.12  | 115          |           | 36-43                    | 8           | JE/RR/SR      | ✓              |                                                    |
|                      |              | 0734       | BO               |           |               |              | 48 12.72          | 125 17.13  |              | 108       |                          |             |               |                |                                                    |
|                      |              | 0744       | EN               |           |               |              | 48 12.73          | 125 17.22  |              |           |                          |             |               |                |                                                    |

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USW = sea water loop

MOR = mooring  
 NET = net haul  
 DRF = drifter

bottle firing method:

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

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## DAILY LOG

## Ocean Sciences and Productivity Division

## INSTITUTE OF OCEAN SCIENCES

| Month   |              |            |           | Year      |               |              | Ship     |           |              | Cruise ID |                |             |               |                |                          |
|---------|--------------|------------|-----------|-----------|---------------|--------------|----------|-----------|--------------|-----------|----------------|-------------|---------------|----------------|--------------------------|
| October |              |            |           | 2005      |               |              | TULLY    |           |              | 2005-23   |                |             |               |                |                          |
| Day     | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position |           | Bottom Depth | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                 |
|         |              |            |           |           |               |              | Latitude | Longitude |              |           |                |             |               |                |                          |
| 03      | Loop 8       | 0759       | BE        | USW       |               | Loop 8       | 48 12.19 | 125 18.68 |              |           |                | 1           | JE            |                |                          |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                          |
| 03      | LA07         | 0839       | BE        | CTD       |               | 27           | 48 09.23 | 125 23.89 | 114          |           | /              | 0           | JE/SR/RR      | ✓              |                          |
|         |              | 0843       | BO        |           |               |              | 48 09.24 | 125 23.85 |              | 107       |                |             |               |                |                          |
|         |              | 0845       | EN        |           |               |              | 48 09.25 | 125 23.84 |              |           |                |             |               |                |                          |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                          |
| 03      | LA08         | 0934       | BE        | ROS       | US            | 28           | 48 05.80 | 125 30.42 | 141          |           | 44-52          | 9           | JE/RR/SR      | ✓              | rinsed pylon w/          |
|         |              | 0938       | BO        |           |               |              | 48 05.79 | 125 30.44 |              | 134       |                |             |               |                | warm fresh water         |
|         |              | 0948       | EN        |           |               |              | 48 05.78 | 125 30.45 |              |           |                |             |               |                |                          |
| 03      | LOOP 9       | 1915       | BE        | USW       |               | LOOP 9       | 47 44.16 | 124 56.58 | 920          |           | LOOP 9         | 1           | DA            |                | LOOP-SAL ONLY            |
| 03      | LA10         | 2252       | BE        | ROS       | US            | 29           | 47 59.01 | 125 43.45 | 920(+)       |           | 53-70          | 18          | JE/RR/SR      |                |                          |
|         |              | 2311       | BO        |           |               |              | 47 58.98 | 125 43.44 |              | 920       |                |             |               |                |                          |
|         |              | 2344       | EN        |           |               |              | 47 58.98 | 125 43.44 |              |           |                |             |               |                |                          |
| 03      | Loop 10      | 2315       | BE        | USW       |               | Loop 10      | 47 58.98 | 125 43.46 |              |           |                | 1           | JE            |                | Loop-sal only            |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                          |
| 04      | LA09         | 0037       | BE        | CTD       |               | 30           | 48 02.35 | 125 36.85 | 346          |           | /              | 0           | JE/RR/SR      | ✓              | salinity spike @ 248m on |
|         |              | 0045       | BO        |           |               |              | 48 02.33 | 125 36.84 |              | 344       |                |             |               |                | upcast.                  |
|         |              | 0052       | EN        |           |               |              | 48 02.31 | 125 36.82 |              |           |                |             |               |                |                          |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                          |

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Date    Time    PDT

Oct. 3

0800

- on station EH 2 for recovery.
- low swell some sea  $\leq 1$  m cold overcast.
- buoy radar reflector not effective in sea clutter.
- a very frisky sea lion is play + leaping all around the buoy.
- Jim has concern release hook was mis-assembled.

0815

- we send release code 2 times + get "rec'd" "exec'd" both times

0930

- standing by to determine if release has indeed taken place.
- determined buoy is free commence recovery
- all on board washing up.
- very disorganized recovery due to "happy hooker" failure and temperaments in crew on deck. - don't want this again.

1005

- on site EH 4 for recovery
- ranges 390, 394, 399 - decide to move closer.

1011

- closer 146 m. 149.
- sent release code "rec'd" "exec'd"

1013

- sighted on surface.

- Head for CTD's LA10, LA9 and LB Line.

# DAILY LOG

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## INSTITUTE OF OCEAN SCIENCES

| Month   |              |            |           | Year      |               |              | Ship     |           |              |           | Cruise ID      |             |               |                |                     |
|---------|--------------|------------|-----------|-----------|---------------|--------------|----------|-----------|--------------|-----------|----------------|-------------|---------------|----------------|---------------------|
| OCTOBER |              |            |           | 2005      |               |              | TULLY    |           |              |           | 2005-23        |             |               |                |                     |
| Day     | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position |           | Bottom Depth | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments            |
|         |              |            |           |           |               |              | Latitude | Longitude |              |           |                |             |               |                |                     |
| 04      | LB13         | 0249       | BE        | ROS       | US            | 31           | 48 10.61 | 125 56.13 | 910?         |           |                |             |               | ✓              |                     |
|         |              | 0308       | BO        |           |               |              | 48 10.65 | 125 56.03 |              | 905       | 71-87          | 17          | DA/MD         |                | Bottle 17 ⇒         |
|         |              | 0342       | EN        |           |               |              | 48 10.67 | 125 55.92 |              |           |                |             |               |                |                     |
| 04      | LOOP11       | 0405       |           | LOOP      |               | LOOP11       | 48 12.55 | 125 52.59 |              |           | LOOP11         | 1           | DA            |                | LOOP11 SAL ONLY     |
| 04      | LB12         | 0416       | BE        | CTD       |               | 32           | 48 12.98 | 125 15.88 | 502          |           |                |             |               |                |                     |
|         |              | 0427       | BO        |           |               |              | 48 12.93 | 125 15.02 |              | 499       | -              | 0           | LP/DA MD      | -              |                     |
|         |              | 0437       | EN        |           |               |              | 48 12.94 | 125 15.14 |              |           |                |             |               |                |                     |
| 04      | LB11         | 0516       | BE        | ROS       |               | 33           | 48 15.15 | 125 47.68 | 206          |           |                |             |               |                |                     |
|         |              | 0522       | BO        |           |               |              | 48 15.14 | 125 47.67 |              | 198       | 88-99          | 11          | LP/DA MD      | ✓              |                     |
|         |              | 0535       | EN        |           |               |              | 48 15.11 | 125 47.59 |              |           |                |             |               |                |                     |
| 04      | LB10         | 0622       | BE        | ROS       |               | 34           | 48 18.60 | 125 41.34 | 154          |           |                |             |               |                |                     |
|         |              | 0626       | BO        |           |               |              | 48 18.58 | 125 41.34 |              | 145       | -              | 0           | DA/LP         |                |                     |
|         |              | 0628       | EN        |           |               |              | 48 18.58 | 125 41.33 |              |           |                |             |               |                |                     |
| 04      | LOOP12       | 0641       | BE        | USW       |               | LOOP12       | 48 19.19 | 125 40.26 |              |           | -              | 1           | JE            |                | Loop 12 Sal only.   |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                     |
| 04      | LB08         | 0747       | BE        | ROS       |               | 35           | 48 25.29 | 125 28.65 | 141          |           | 100-108        | 9           | JE/SR/RR      |                | Bottle 7 was empty. |
|         |              | 0750       | BO        |           |               |              | 48 25.29 | 125 28.64 |              | 135       |                |             |               |                | no sample.          |
|         |              | 0801       | EN        |           |               |              | 48 25.23 | 125 28.65 |              |           |                |             |               |                |                     |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                     |

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Bottle 17 contained no water. Likely tripped in air.

- Oct. 3

- made arrangements for Sue + Jim to get back to I.O.S.
- Bosun's friend Dwan Allen offered to drive for \$200.00 Port Renfrew to I.O.S.

- tel: 642-4207 cel: 413-7697  
\$200.00

- arranged petty cash with Char.

## DAILY LOG

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| Month   |              |            | Year      |           |               |              | Ship     |           |              |           | Cruise ID      |             |               |                |                    |
|---------|--------------|------------|-----------|-----------|---------------|--------------|----------|-----------|--------------|-----------|----------------|-------------|---------------|----------------|--------------------|
| OCTOBER |              |            | 2005      |           |               |              | TULLY    |           |              |           | 2005-23        |             |               |                |                    |
| Day     | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position |           | Bottom Depth | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments           |
|         |              |            |           |           |               |              | Latitude | Longitude |              |           |                |             |               |                |                    |
| 04      | LB06         | 0925       | BE        | CTD       |               | 36           | 48 32.20 | 125 15.50 | 116          |           | —              | 0           | JE/RK/SR      | ✓              |                    |
|         |              | 0929       | BO        |           |               |              | 48 32.19 | 125 15.54 |              | 110       |                |             |               |                |                    |
|         |              | 0932       | EN        |           |               |              | 48 32.19 | 125 15.59 |              |           |                |             |               |                |                    |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                    |
| 04      | LB05         | 1002       | BE        | CTD       |               | 37           | 48 34.03 | 125 12.00 | 102          |           | —              | 0           | JE/RK/SR      | ✓              |                    |
|         |              | 1005       | BO        |           |               |              | 48 34.05 | 125 12.00 |              | 95        |                |             |               |                | Pylon washed with  |
|         |              | 1007       | EN        |           |               |              | 48 34.04 | 125 12.01 |              |           |                |             |               |                | warm fresh water.  |
| 04      | LOOP13       | 1920       | BE        | USW       |               | LOOP13       | 48 30.76 | 125 10.66 | —            | —         | LOOP13         | 1           | DA            |                | LOOP13 - SAL ONLY  |
| 04      | LOOP14       | 2301       | BE        | USW       |               | LOOP14       | 48 31.61 | 126 06.20 |              |           | —              | 1           | JE            |                | LOOP14 "           |
| 05      | LOOP15       | 0305       | BE        | USW       |               | LOOP15       | 48 26.06 | 126 15.61 | —            | —         | LOOP15         | 1           | DA            |                | LOOP15 - "         |
| 05      | LC10         | 0352       | BE        | ROS       |               | 38           | 48 22.43 | 126 20.23 | 1240?        |           |                |             |               |                |                    |
|         |              | 0405       | BO        |           |               |              | 48 22.42 | 126 20.15 |              | 1230      | —              | 0           | MD/LP DA      | ✓              | wind/swell         |
|         |              | 0420       | EN        |           |               |              | 48 22.35 | 126 19.98 |              |           |                |             |               |                |                    |
| 05      | LC09         |            | BE        | ROS       |               | 39           |          |           |              |           |                |             |               |                | Cancelled due      |
|         |              |            | BO        |           |               |              |          |           |              |           |                |             |               |                | To weather         |
|         |              |            | EN        |           |               |              |          |           |              |           |                |             |               |                |                    |
| 05      | LOOP16       | 0643       | BE        | USW       |               | LOOP16       | 48 24.15 | 126 12.58 |              |           |                | 1           | JE            |                | Loop 16 - Sal only |
| 05      | Loop17       | 1910       | BE        | USW       |               | LOOP17       | 48 36.46 | 126 13.90 |              |           |                | 1           | DA            |                | LOOP17 "           |
|         |              |            |           |           |               |              |          |           |              |           |                |             |               |                |                    |

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| <u>Date</u> | <u>Time</u> | <u>PDT</u>                                                                                    |
|-------------|-------------|-----------------------------------------------------------------------------------------------|
| Oct. 4      | 0730        | - on station JF2C for deployment                                                              |
|             | 0812        | - deployed JF2C-H in 183 m datum at $48^{\circ}21.534$ $\ast$ $124^{\circ}12.753$             |
|             |             | - head for Port Renfrew to drop Jim + Sue                                                     |
|             |             | - attempts to contact D. Allen not successful - Chict confirmed it yesterday                  |
|             |             | - gave Jim a paper with contacts, \$200.00, coding, signed.<br>numbers                        |
|             | 0930        | - Jim + Sue depart by 733 for Port Renfrew.                                                   |
|             |             | - we head for A1 and B101 for recovery ETA 1600                                               |
|             | 1020        | - launch returns                                                                              |
|             |             | - notes about ECOHAB next year:                                                               |
|             |             | - drain buoys + patch + anti-foul paint.                                                      |
|             |             | - make a better equivalent lifting ring for 3rd buoy                                          |
|             |             | - fix 3rd tripod.                                                                             |
|             |             | - better radar reflectors - same reflector better angle.                                      |
|             | 1623        | - on station B101-H for recovery. - developing gale                                           |
|             |             | - ranges 417, 418, drifting over it. <u>395, 396, 398</u> drifting away 402<br>directly over. |
|             | 1629        | - 445 m range sent BCDF received positive response - sighted on surface.                      |
|             |             | - recovered without incident.                                                                 |

# DAILY LOG

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| Month OCTOBER |              |            | Year 2005 |           |               | Ship TULLY   |          |           | Cruise ID 2005-23 |           |                |             |               |                |                                            |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|----------|-----------|-------------------|-----------|----------------|-------------|---------------|----------------|--------------------------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position |           | Bottom Depth      | Max Depth | Sample Numbers | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                                   |
|               |              |            |           |           |               |              | Latitude | Longitude |                   |           |                |             |               |                |                                            |
| 06            | LOOP18       | 0036       | BE        | USW       |               | Loop18       | 48 29.26 | 126 07.57 |                   |           | —              | 1           | JE            |                | Loop18 - SAL ONLY                          |
| 06            | LOOP19       | 0310       | BE        | USW       |               |              | 48 30.98 | 126 12.70 |                   |           | —              | 1           | DA            |                | LOOP19 - SAL ONLY                          |
| 06            | LC09         | 0358       | BE        | ROS       |               | 39           | 48 26.05 | 126 13.85 | 615               |           |                |             |               |                |                                            |
|               |              | 0413       | BO        |           |               |              | 48 26.20 | 126 14.07 |                   |           | 109-124        |             | MD/LP DA      | ✓              |                                            |
|               |              | 0436       | EN        |           |               |              | 48 26.40 | 126 14.43 |                   |           | —              |             |               |                |                                            |
| 06            | LC09         | 0459       | BE        | NET       |               | 40           | 48 23.99 | 126 13.74 | 615               | 240       | —              |             | MD/LP DA      |                | Paint in nets                              |
| 06            | LC08         | 0612       | BE        | NET       |               | 41           | 48 29.53 | 126 07.20 | 200               | 175       | —              |             | 11            |                |                                            |
| 06            | LC08         | 0632       | BE        |           |               | 42           | 48 29.51 | 126 07.21 |                   |           |                |             |               |                |                                            |
|               |              | 0635       | BO        |           |               |              | 48 29.54 | 126 07.27 | 200               |           |                |             |               |                |                                            |
|               |              | 0638       | EN        |           |               |              | 48 29.57 | 126 07.31 |                   | 190       |                |             |               |                |                                            |
| 06            | LOOP20       | 0644       | BE        | USW       |               | Loop20       | 48 29.57 | 126 07.42 |                   |           | —              | 1           | JE            |                | Loop20 - sal only                          |
| 06            | LC07         | 0730       | BE        | ROS       | US            | 43           | 48 32.98 | 126 00.55 | 131               |           | 125-132        | 8           | JE/RR/SC      | ✓              |                                            |
|               |              | 0733       | BO        |           |               |              | 48 33.00 | 126 00.58 |                   | 122       |                |             |               |                |                                            |
|               |              | 0742       | EN        |           |               |              | 48 32.98 | 126 00.62 |                   |           |                |             |               |                |                                            |
| 06            | LC06         | 0830       | BE        | CTD       |               | 44           | 48 36.52 | 125 54.07 | 94                |           | —              | 0           | JE/RR/SC      | ✓              | seasave crashed while getting initial data |
|               |              | 0833       | BO        |           |               |              | 48 36.54 | 125 54.11 |                   | 86        |                |             |               |                |                                            |
|               |              | 0835       | EN        |           |               |              | 48 36.52 | 125 54.2  |                   |           |                |             |               |                |                                            |
|               |              |            |           | NET       |               | 45           |          |           |                   |           |                |             |               |                | called off due to lack of time             |

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Date    Time    PDT

Oct. 4

1734

- on station AI-00 for recovery
- sent CDF
- range 609, 595, 593
- waiting for crew + mate after supper.

1748

- sent ACDF received positive response.
- sighted on surface.
- range 554 m.

- recovery complete in deteriorating conditions - full gale by the time we finish. also near dark. 35 knot winds.

- Vemco's led to a number line foulings during recovery

- I decide not to redeploy to due the danger they present in these conditions.

- the downward looking ADCP had 5 of 8 8" trawl floats flooded - these are supposed to be good to 600m but they obviously are not - they worked in previous shallower deployments but were not up to 220m for extended period - one even exploded on deck.

- the external battery pack on the downward ADCP blew out the bottom of the pressure case also flooded

- head for CTD's on LC Line
- very weather dependant
- conditions are marginal.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

| Month OCTOBER |              |            |           | Year 2005 |               |              | Ship TULLY |           |              |           | Cruise ID 2005-23 |             |               |                |                                    |
|---------------|--------------|------------|-----------|-----------|---------------|--------------|------------|-----------|--------------|-----------|-------------------|-------------|---------------|----------------|------------------------------------|
| Day           | Station Name | Time (UTC) | Time Code | Cast Type | Firing Method | Event Number | Position   |           | Bottom Depth | Max Depth | Sample Numbers    | #of Bottles | Watch Keepers | Trans. Cleaned | Comments                           |
|               |              |            |           |           |               |              | Latitude   | Longitude |              |           |                   |             |               |                |                                    |
| 06            | LC05         | 0923       | BE        | ROS       | US            | 45           | 48 39.95   | 125 47.43 | 65           |           | 133-138           | 6           | JE/RR/SR      | ✓              |                                    |
|               |              | 0925       | BO        |           |               |              | 48 39.96   | 125 47.44 |              | 56        |                   |             |               |                | pylon washed with warm fresh water |
|               |              | 0931       | EN        |           |               |              | 48 39.93   | 125 47.47 |              |           |                   |             |               |                |                                    |
| 06            | LOOP21       | 2306       | BE        | USW       |               | LOOP21       | 49 32.34   | 127 07.65 |              |           |                   | 1           | JE            |                | Data backed up to PC               |
| <del>06</del> | LOOP22       | 0245       | BE        | USW       |               | LOOP22       | 49 56.13   | 127 51.04 |              |           | —                 | 1           | DA            |                | LOOP22 - SAL ONLY                  |
| 07            | LOOP23       | 1757       | BE        | USW       |               | LOOP23       | 50 39.49   | 126 10.07 |              |           | —                 | 1           | JE            |                | LOOP23 "                           |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
| 07            | TCS          | 1952       | BE        | ROS       | US            | 46           | 50 43.17   | 126 12.04 | 203          |           | 139-149           | 11          | DA/MD/SE      | ✓              |                                    |
|               |              | 1956       | BO        |           |               |              | 50 43.17   | 126 12.04 |              | 193       |                   |             |               |                |                                    |
|               |              | 2007       | EN        |           |               |              | 50 43.18   | 126 12.06 |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
| 07            | KIW          | 2115       | BE        | ROS       | US            | 47           | 50 39.40   | 126 09.86 | 180          |           | 150-159           | 10          | JE/DA/MD      | ✓              |                                    |
|               |              | 2118       | BO        |           |               |              | 50 39.40   | 126 09.86 |              | 169       |                   |             |               |                |                                    |
|               |              | 2129       | EN        |           |               |              | 50 39.40   | 126 09.88 |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |
|               |              |            |           |           |               |              |            |           |              |           |                   |             |               |                |                                    |

Date Time PDT

Oct. 4 app. 1100. - cancelled CTD operations due to weather. at LC09.  
full gale. 50 knot winds and accompanying seas.  
- have to

Oct. 5 0730 - still have to no science possible.  
- standing by AI and preparing for deployment.  
1330 - still SE 35 knot gusting 40 3m + seas.

1800 - have to until after supper set up on deck wind + seas have diminished but still only little better than marginal

1950 - launched AI-PP at  $48^{\circ}31.766$ ,  $126^{\circ}12.137'$  in 495-497 m on lab.  
501 m on bridge sounder

- we have the usual "bouncy" echo sounding and on top it is rough weather

- launch was in dark the only way to confirm mooring submerged and stayed down was by Argos - after 10 min following launch there was no Argos signal from 7363 or 7069.

- depart for CTD's on LC Line

Date    Time    PDT

Oct. 6

0741

- moving over EOI for recovery.

0748

- ranges 92, 92 directly over.

- grey overcast + drizzle

large swell - especially in shallow water

0751

- moved to release position

- range 168, 173

- sent ABCGH received positive response

0753

- sighted on surface.

- recovered without incident

0830

- mooring on deck + washed

- RCM<sub>4</sub> caught on stern and arch was damaged, also gimbal rod.

- setup for redeployment.

- instrument download, service + restart takes a long time

- SBE 37 s + RCM<sub>4</sub> worked well

- ADCP data till August (mid) - intermittent operation afterward - suspect flooded power cable.

1317

- deployed EOI-PP in 98 m water at  $49^{\circ}17.534'$   $126^{\circ}35.889'$   
101 - 2.8 m tide = 98.2 m datum.

- head for Knight Inlet app. 22 hr steam.

Date    Time    PDT.

Oct. 7

0800

- approaching Village Island at entrance to Knight Inlet.
- contacted Dario on Vector to coordinate Dario boarding Tully after moorings are recovered.
- decide to send Scott + Rob back on Vector to participate in University of Rhode Island project of Instrument Dev. Group. I.O.S.

1038

- on top of mooring KIW for recovery.
- range 171, 173 right on top.
- flat, sunny, no wind, cold, moving off to release

1042

1043

- range 197, sent ABCD, received positive response
- sighted on surface.
- recovered without incident
- fouling minimal - not effect rotors
- 2 rotors broken on recovery.
- 4075, 2524

1157

- stopped over TCS for recovery
- moved to release position.
- range 195 m

1201

1202

- 244, 246 m. send ABFH rec'd positive response
- sighted on surface.
- recovered without incident
- fouling very light - no problem to rotors

Date    Time    PDT

Oct. 7

1210

- notified Dario on Vector to come on board to look at ADCP data.
- washing up + setting up for re-deployment.
- Dario boards
  - data good moorings can be redeployed as is.
  - we had in error set up RCM's on 1 hr. for 1 year deployment. Dario said this would be acceptable.
- Dario, Rob + Scott return to Vector.
  - Scott and Rob are needed for completion of Rhode Island project. + Vector will return to I.O.S. sooner than Tully

1653

- launched TCS-02 in 210 m water at position:  
 $50^{\circ}43.170'$   $126^{\circ}11.992'$ 
  - this will be too deep
  - we deployed with drop line that is 3m short by error
  - just as we launched a 10m deep hole appeared. we launched into it by accident - too late.

Date   Time   PDT

Oct. 7   1833   - launched KIW-02 in 182m water at position:  
50°39.383' 126°09.841'

- head for I.O.S.

Oct. 8   0730 - steam home - packing up for off load Sat. evening.

1630 - arrive I.O.S.

- off loading was not possible

- ship crew will clear deck on Oct. 9

- science equipment in lab. off loaded Oct. 11  
after long weekend.