

## EXPEDITION PLAN AND ITINERARY

**DEPARTMENT:** DFO, Ocean Sciences and Productivity Division

**MISSION NO:** 2007-13

**CCG PATROL NO:** 07-03

**MISSION AREA:** Line P, Station Papa, Line Z

**MISSION OBJECTIVE:** Repeat hydrography section, deploy moorings, deploy Argo float.

**SHIP:** John P. Tully

**DATE, FROM:** 29 May 2007 (Pat Bay)    **TO:** 19 June 2007 (Prince-Rupert)

**SENIOR SCIENTIST:** Marie Robert

**SCIENTIFIC PERSONNEL:** 17 berths required (\*\* stay on for Line Z cruise.

All the others leave in Prince-Rupert).

| Female                        | Male                     |
|-------------------------------|--------------------------|
| Janet Barwell-Clarke (IOS)    | Doug Anderson (IOS)      |
| Marie Robert (IOS) **         | Michael Arychuk (IOS)    |
| Shani Rousseau (UVic)         | Michael Bentley (CWS) ** |
| Reyna Jenkyns (UVic)          | Kevin Bartlett (UVic)    |
| Maria Kavanaugh ((OSU)        | Eric Kunze (UVic)        |
| Martine Lizotte (U. Laval)    | Chris Mackay (UVic)      |
| Anissa Merzouk (UBC)          | Steve Emerson (UW)       |
| Sarah-Jeanne Royer (U. Laval) | Patrick A'Hearn (NOAA)   |
|                               | David Zimmerman (NOAA)   |

**SHIP EQUIPMENT REQUIRED:** depth sounder, sea water supply to lab and heli-deck, heave compensator, tugger winch, crane.

**DECK MACHINERY REQUIRED:**

**Note:** The details are on the deck plan, at the end.

**OTHER EQUIPMENT TO BE LOADED:** Scientific gear (lab instruments, sampling equipment, etc.). **Container to be loaded Tuesday May 29 first thing in the morning.**

**ANTICIPATED LOADING TIME:** One day. Most winches and rosettes/CTD equipment will already be there from the prior cruise (La Perouse). Container, UVic winch and mooring gear to be loaded on May 29.

**DANGEROUS CHEMICALS:**

[INCLUDING MATERIAL SAFETY DATA SHEETS AND WHMIS LABELS]

Separate list to follow, to be handed to the Chief Officer before departure.

Radioisotopes will be used.

**Station List:**

| Station                              | Latitude<br>deg min N | Longitude<br>deg min W | Bottom<br>Depth m | Sampling                                        |
|--------------------------------------|-----------------------|------------------------|-------------------|-------------------------------------------------|
| Saanich Inlet                        |                       |                        |                   |                                                 |
| SI03                                 | 48 35.60              | 123 30.00              | 220               | Rosette B-10                                    |
| Underway sampling survey             |                       |                        |                   |                                                 |
| JF1                                  | 48 16.00              | 123 30.00              | 150               | under way                                       |
| JF2                                  | 48 18.00              | 124 00.00              | 180               | under way                                       |
| JF3                                  | 48 27.00              | 124 30.00              | 230               | under way                                       |
| JF4                                  | 48 32.30              | 125 00.00              | 60                | under way                                       |
| Line P CTD and water sampling survey |                       |                        |                   |                                                 |
| P1                                   | 48 34.5               | 125 30.0               | 120               | CTD B-10                                        |
| P2                                   | 48 36.0               | 126 00.0               | 114               | Rosette B-10, Bongo                             |
| P3                                   | 48 37.5               | 126 20.0               | 730               | CTD B-10                                        |
| P4                                   | 48 39.0               | 126 40.0               | 1300              | Rosette B-10, Bongo,<br>Go-flos                 |
| P5                                   | 48 41.5               | 127 10.0               | 2100              | CTD 2000 m                                      |
| P6                                   | 48 44.6               | 127 40.0               | 2500              | CTD 2000 m                                      |
| P7                                   | 48 46.6               | 128 10.0               | 2450              | CTD 2000 m                                      |
| P8                                   | 48 49.0               | 128 40.0               | 2440              | Rosette 2000 m, Bongo                           |
| P9                                   | 48 51.4               | 129 10.0               | 2340              | CTD 2000 m                                      |
| P10                                  | 48 53.6               | 129 40.0               | 2660              | CTD 2000 m                                      |
| P11                                  | 48 56.0               | 130 10.0               | 2700              | CTD 2000 m                                      |
| P12                                  | 48 58.2               | 130 40.0               | 3300              | Rosette B-10, Bongo,<br>Go-flos                 |
| P13                                  | 49 02.6               | 131 40.0               | 2875              | CTD 2000 m                                      |
| P14                                  | 49 07.4               | 132 40.0               | 3275              | CTD 2000 m                                      |
| P15                                  | 49 12.0               | 133 40.0               | 3200              | CTD 2000 m                                      |
| P16                                  | 49 17.0               | 134 40.0               | 3550              | Rosette B-10, Bongo,<br>Go-flos                 |
| P17                                  | 49 21.0               | 135 40.0               | 3200              | CTD 2000 m                                      |
| P18                                  | 49 26.0               | 136 40.0               | 3775              | CTD 2000 m                                      |
| P19                                  | 49 30.0               | 137 40.0               | 3850              | CTD 2000 m                                      |
| P20                                  | 49 34.0               | 138 40.0               | 3890              | Rosette B-10, Bongo,<br>Go-flos                 |
| P21                                  | 49 38.0               | 139 40.0               | 3840              | CTD 2000 m                                      |
| P22                                  | 49 42.0               | 140 40.0               | 3880              | CTD 2000 m                                      |
| P23                                  | 49 46.0               | 141 40.0               | 3970              | CTD 2000 m                                      |
| P24                                  | 49 50.2               | 142 40.0               | 3910              | CTD 2000 m                                      |
| P25                                  | 50 00.0               | 143 36.3               | 3890              | CTD 2000 m                                      |
| P35                                  | 50 00.0               | 144 18.2               | 4170              | CTD 2000 m                                      |
| P26                                  | 50 00.0               | 145 00.0               | 4250              | Rosette B-10, Bongo,<br>Go-flos, Argo, moorings |
| PIE93                                | 47 00.0               | 144 40.20              | 4685              | Rosette                                         |
| S5                                   | 47 30.0               | 145 00.0               | ?                 | CTD                                             |

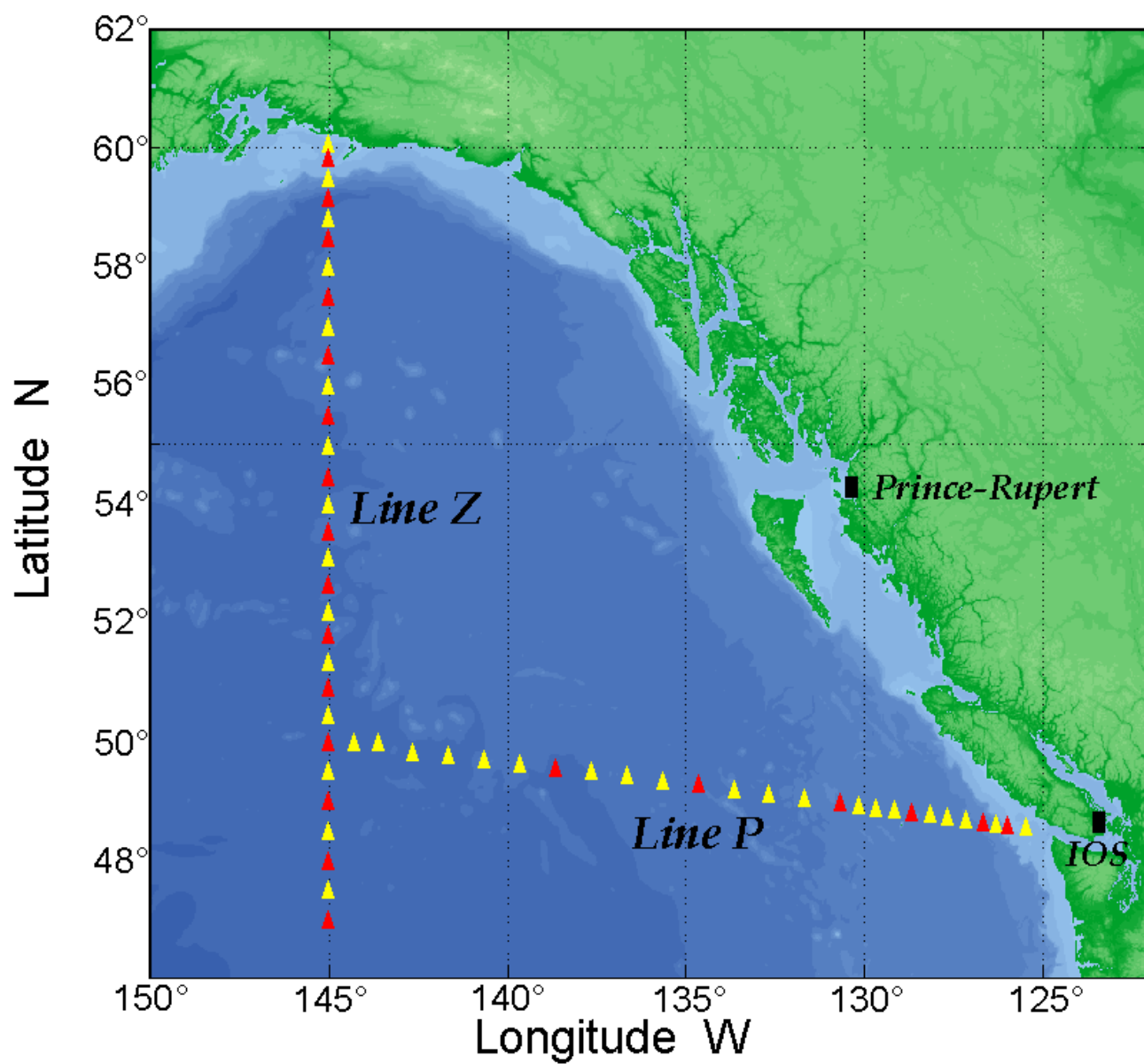
|     |          |           |      |         |
|-----|----------|-----------|------|---------|
| S4  | 48 00.0  | 145 00.0  | ?    | Rosette |
| S3  | 48 30.0  | 145 00.0  | ?    | CTD     |
| S2  | 49 00.0  | 145 00.0  | ?    | Rosette |
| S1  | 49 30.0  | 145 00.0  | ?    | CTD     |
| P41 | 50 27.0  | 145 00.0  | 4268 | CTD     |
| P32 | 50 54.0  | 145 00.0  | 4267 | Rosette |
| Z1  | 51 21.00 | 145 00.00 | 4175 | CTD     |
| Z2  | 51 47.50 | 145 00.00 | 3850 | Rosette |
| Z3  | 52 12.00 | 145 00.00 | 4090 | CTD     |
| Z4  | 52 39.00 | 145 00.00 | 4073 | Rosette |
| Z5  | 53 06.00 | 145 00.00 | 4095 | CTD     |
| Z6  | 53 33.00 | 145 00.00 | 4067 | Rosette |
| Z7  | 54 00.00 | 145 00.00 | 4039 | CTD     |
| Z8  | 54 27.00 | 145 00.00 | 4123 | Rosette |
| Z9  | 55 00.00 | 145 00.00 | 4106 | CTD     |
| Z10 | 55 30.00 | 145 00.00 | 4007 | Rosette |
| Z11 | 56 00.00 | 145 00.00 | 3902 | CTD     |
| Z12 | 56 30.00 | 145 00.00 | 3859 | Rosette |
| Z13 | 57 00.00 | 145 00.00 | 3839 | CTD     |
| Z14 | 57 30.00 | 145 00.00 | 3962 | Rosette |
| Z15 | 58 00.00 | 145 00.00 | 3874 | CTD,    |
| Z16 | 58 30.00 | 145 00.00 | 3989 | Rosette |
| Z17 | 58 50.00 | 145 00.00 | 3905 | CTD     |
| Z18 | 59 10.00 | 145 00.00 | 4071 | Rosette |
| Z19 | 59 30.00 | 145 00.00 | 1010 | CTD     |
| Z20 | 59 50.00 | 145 00.00 | 140  | Rosette |
| Z21 | 60 05.00 | 145 00.00 | 172  | CTD     |

**Note: We will not have the time to do all the Line Z stations. What cannot be done during this cruise will be completed during the following cruise, 2007-14, from June 19 to July 3 2007.**

## Itinerary

|         |                                                                                                                                                  |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| May 29  | Load at IOS all day                                                                                                                              |
| May 30  | Do Saanich Inlet cast. Depart to P1 when sampling completed.                                                                                     |
| June 6  | Arrive at Station Papa.<br>Deploy moorings and do dawn/dusk experiment for 3 days.<br>When time permits during day or night, sail to S stations. |
| June 9  | After dusk experiment: leave Station P to complete Line S or start Line Z.                                                                       |
| June 15 | Start heading to Prince Rupert.                                                                                                                  |
| June 19 | Crew change in Prince Rupert.                                                                                                                    |

# Cruise track

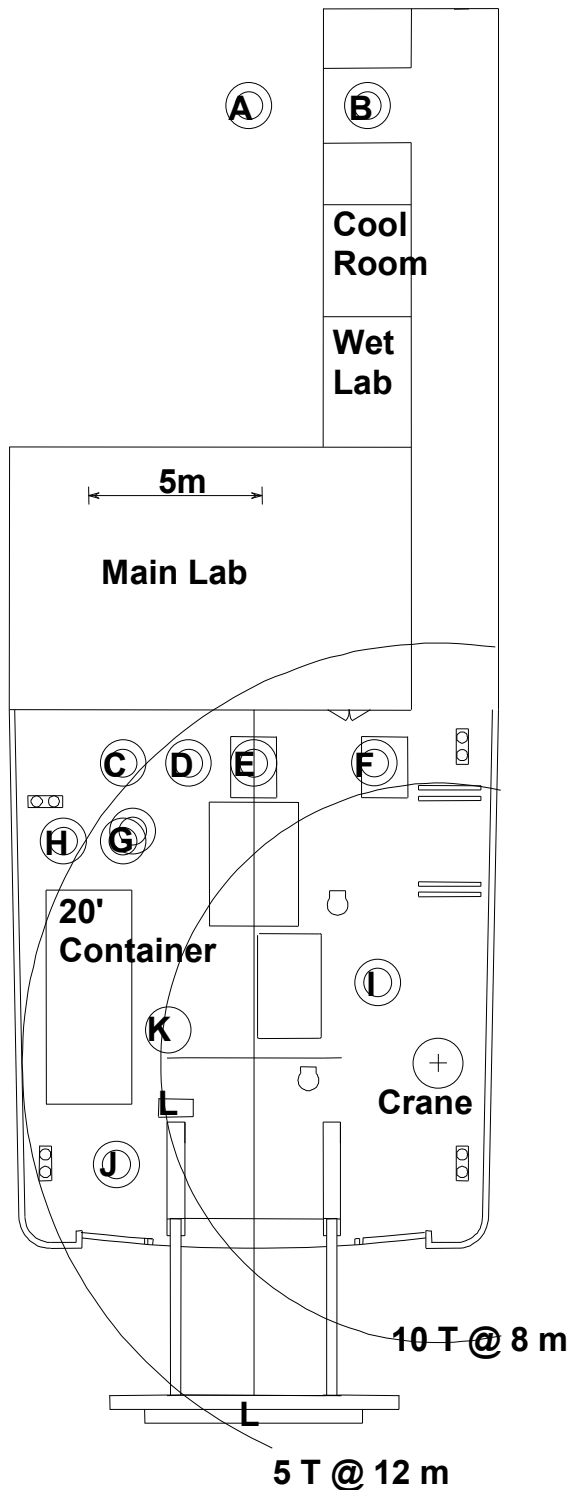


# CCGS John P. Tully

Deck Lay Out: M. Robert,  
Station P Cruise

Cruise ID: 2007-13 – 2007-14

Date: May 29 – July 3, 2007



310 #1082

|               |                                                        |
|---------------|--------------------------------------------------------|
| A:            | Not Required                                           |
| B:            | Hydro Winch 310 #1082 c/w 4730m X 5/32" X 3x19 wire    |
| C:            | Work Winch 331 #1231 c/w 2395m X 1/2" X 3x19 Drag Wire |
| D:            | Work Winch 589 #515c/w 2910 m X 5x16" X 3x19 wire      |
| E:            | CTD Winch #17027c/w 5800m X .322" X 3cdr cable         |
| F:            | CTD Winch #17026 c/w 3280m X .322" X 7cdr cable        |
| G:            | Not Required                                           |
| H:            | Not Required                                           |
| I:            | U-Vic MVP winch                                        |
| J:            | Not Required                                           |
| K:            | Capstan Required                                       |
| L:            | Heave Compensator Required                             |
| Crane         | Required                                               |
| Aft A-Frame   | Required                                               |
| Stbd. A-Frame | Not Required                                           |
| 20' Container | Required                                               |

## Comments:

- NOAA PMEL Surface Flux mooring will require a 12m<sup>2</sup> deck area pre-deployment and may use the Capstan.
- Please also load, 2 Osco 20" CTD blocks, and an Omron counter for each winch.
- The Heave Compensator and Tully Tugger operational c/w spares are required. (Ship's Engineers, please)
- Trace-Metal sheave and rollers needed for breeze-way hydro winch