

EXPEDITION PLAN AND ITINERARY

DEPARTMENT: DFO, Ocean Sciences Division

MISSION NO: 2013-18

CCG PATROL NO: 13-06

MISSION AREA: Line P, Station Papa.

MISSION OBJECTIVE: Repeat hydrography/zooplankton section, do extensive trace metal sampling, deploy drifters for Environment Canada.

SHIP: John P. Tully

DATE, FROM: 20 August 2013

TO: 5 September 2013

SENIOR SCIENTIST: Marie Robert 363.6612 marie.robert@dfo-mpo.gc.ca

SCIENTIFIC PERSONNEL: 17 berths required

Female	Male
Carolyn Duckham (UBC)	Michael Arychuk (IOS)
Moira Galbraith (IOS)	Robin B�nard (U. Laval)
Hollie Johnson (UVic)	Glenn Cooper (IOS)
Martine Lizotte (U. Laval)	Sam Kheirandish (UBC)
Maite Maldonado (UBC)	Hugh Maclean (IOS)
Ania Posacka (UBC)	Andreas Mueller (UBC)
Marie Robert (IOS)	Ernesto Martinez (U. Berkeley)
Christina Schallenberg (UVic)	
Nina Schuback (UBC)	
Nari Sim (UBC)	

SHIP EQUIPMENT REQUIRED: EK60 functioning, EA600 functioning, EA600 remote display available from the closet and the bridge, GPS in lab/closet functioning, both DD20s functioning in the main lab, sea water supply to lab and heli-deck, heave compensator, tugger winch, LARS, ship's crane, ship's email, internet at sea.

DECK MACHINERY REQUIRED: See last page of this plan.

OTHER EQUIPMENT TO BE LOADED: Scientific gear (lab instruments, sampling equipment, etc.), aft-deck containers, Rad-Van, incubators on the heli-deck, mooring gear.

ANTICIPATED LOADING TIME:   to a day. Loading will start Tuesday afternoon August 20 after crew change. We will depart either Tuesday evening or Wednesday morning, once all the gear is loaded.

DANGEROUS CHEMICALS: Separate list to follow, to be handed to the Chief Officer before departure. Radioisotopes (¹⁴C) will be used during this cruise.

Station List:

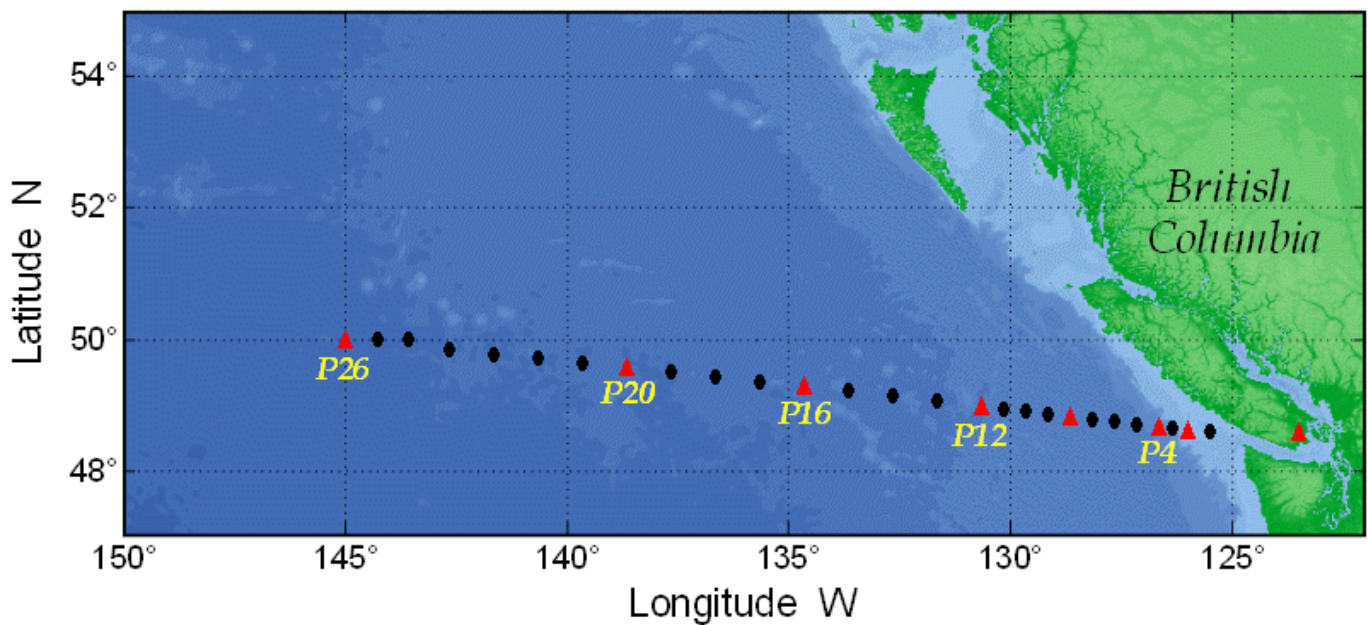
Station	Latitude deg min N	Longitude deg min W	Bottom Depth m	Sampling
Saanich Inlet – SI03 or any other suitable location in the inlet.				
SI03	48°35.6	123°30.0	225	Rosette to B-10 for IOS
Underway sampling survey				
JF1	48 16.0	123 30.0	150	under way
JF2	48 18.0	124 00.0	180	under way
JF3	48 27.0	124 30.0	230	under way
JF4	48 32.3	125 00.0	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	Major station.
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	Major station.
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	Major station.
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	Major station.
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	Major station.
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	Major station.
Mooring	50°08.00	144°50.00	~4250	Rosette

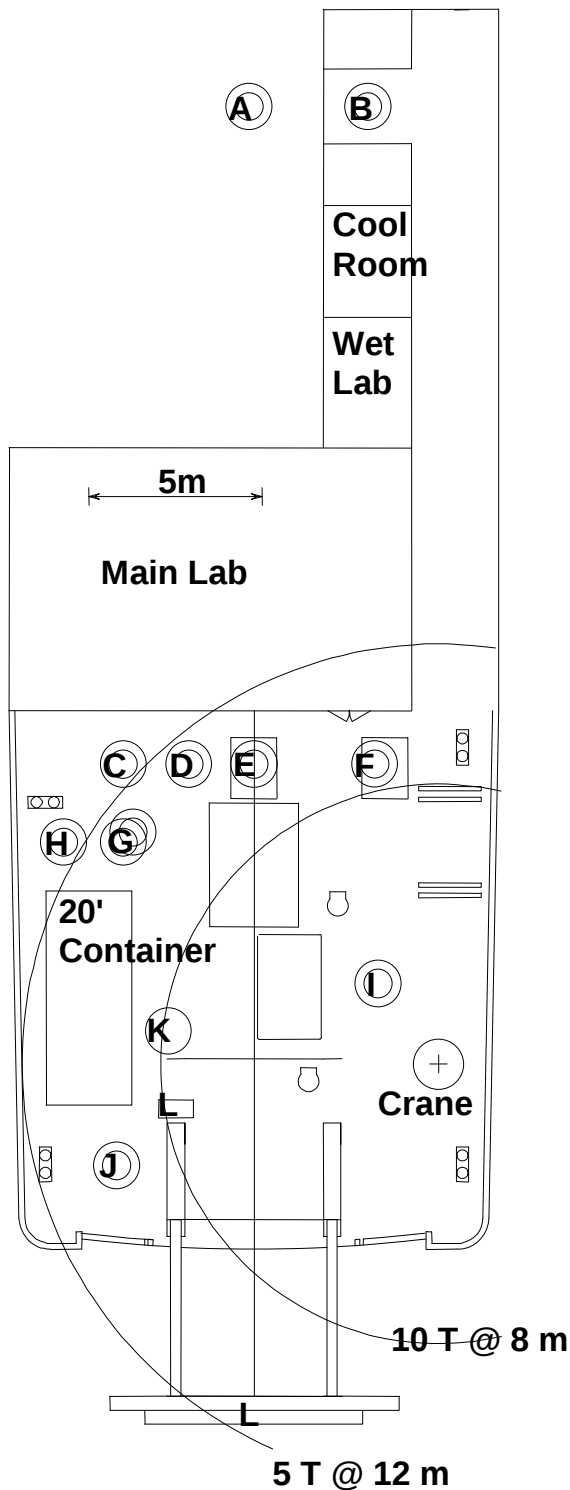
- **Major station: Many rosette/trace metal rosette casts; Bongo cast to 250 m; Bongo cast to 1200 m; Go-flos and pumping in the chains.**

Itinerary

August 20	Start loading at IOS in the afternoon after crew change. Leave in the evening if loading completed.
August 21	Leave after lunch. Do Saanich Inlet rosette cast. Depart to P1 when sampling completed.
August 22	P4
August 24	P12
August 26	P16
August 28	P20
August 30	P26. Rosette casts near NOAA mooring PA-007.
Late Aug 31	Leave Station Papa.
September 4	Re-visit P4
September 5	Arrive at IOS and offload.

Cruise track





CCGS John P. Tully

Deck Lay Out: **Station P Cruise, M. Robert**

Cruise ID: **2013-18**

Date : **Aug 20th to Sept 6th, 2013**

A:	Empty
B:	Not there anymore
C:&D:	Trace Metal Lab Container
E:	Trace Metal Winch (U-Vic's)
F:	CTD Winch #17027 c/w 4500m x .322"Ø x 3 cdr cable
G:	Empty
H:	Empty
I:	Hydro (Bongo) winch 420 #1432 c/w 2650 m x 5/32" X 3x19
J:	Empty
K:	Not Required
L:	Heave Compensator Required
Crane	Required
Aft A-Frame	Required
B.D. Hydro #1076-01	Kevlar: ¼" x 4550 m
Hawboldt CTD (BD)	#17026 c/w 7060m x .322"Ø x 3 cdr
Stbd. A-Frame	Not Required
20' Container	Required
Rad Van (BD)	Required

Additional Comments:

- Hawboldt spares box to be loaded.
- Boat Deck (BD) Hydro now fully loaded with ~4550 m Kevlar line.
- Please also load, 2 Oasco 20" CTD blocks. The Heave Compensator and Tully Tugger operational c/w spares are required.