

EXPEDITION PLAN AND ITINERARY

DEPARTMENT: DFO, Ocean Sciences Division

MISSION NO: 2014-18

CCG PATROL NO: 14-03

MISSION AREA: Line P, Station Papa.

MISSION OBJECTIVE: Repeat hydrography/zooplankton section, sample for Cesium. service NOAA moorings, deploy weather buoys (drifters) for Environment Canada and for NOAA.

SHIP: John P. Tully

DATE, FROM: 8 June 2014

TO: 24 June 2014

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

SCIENTIFIC PERSONNEL: 15 berths required

Female	Male
Victoria Lam (UBC)	Michael Arychuk (IOS)
Marie Robert (IOS)	Mark Belton (IOS)
Nina Schuback (UBC)	Glenn Cooper (IOS)
Maureen Soon (UBC)	Michael Craig (NOAA)
Mariela Tuquero (UW)	Mirkko Flecken (UBC)
	Steve Kunze (NOAA)
	Andreas Mueller (UBC)
	Chris Payne (UBC)
	Kyle Simpson (IOS)
	Doug Yelland (IOS)

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, heave compensator, tigger winch, LARS, ship's crane, ship's email, internet at sea, hydro winch controls functioning, 733.

DECK MACHINERY REQUIRED: See last page of this plan.

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

ANTICIPATED LOADING TIME: A day. Loading will start Sunday morning June 8 as soon as the La Perouse group is done offloading their gear. We will depart Sunday after the mooring gear is all loaded, hopefully in the afternoon.

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

Station List:

Station	Latitude deg min N	Longitude deg min W	Bottom Depth m	Sampling
Haro Strait				
Haro 59	48°36.85	123°14.86	~220	Rosette to B-10
Juan de Fuca Strait				
JF1	48 16.0	123 30.0	150	under way
JF2*	48 18.0	124 00.0	~175	Rosette to B-10
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, UBC pumping**
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, UBC pumping**
Mooring	50°08.00	144°50.00	~4250	Rosettes, servicing.

- **Major station:** Many rosette casts; Bongo cast to 250 m; Bongo cast to 1200m OR MPS to 2000 m; Goflos and pumping in the chains.
- **Moorings:** the PA-007 mooring will be recovered and PA-008 will be deployed, in a different location.

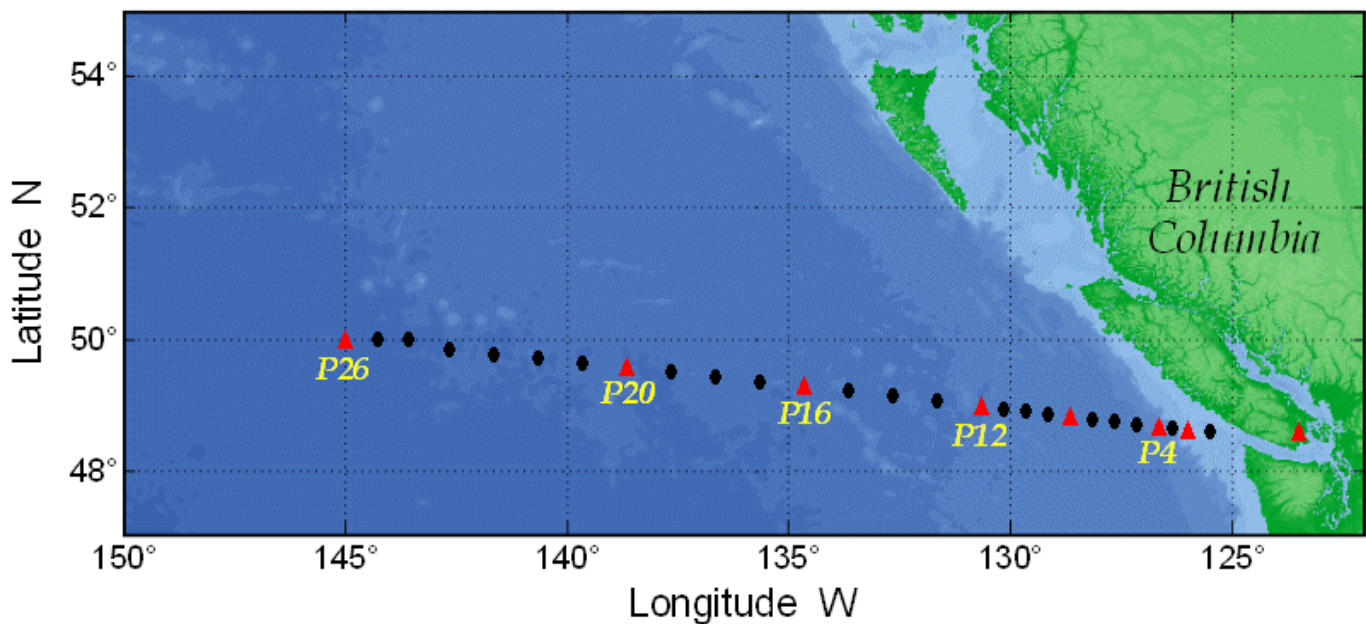
* Station at JF2: as close as possible to station but can be moved if problem with ship traffic.

** UBC pumping: *in-situ* pumps off the aft-deck.

Itinerary

June 8	Start loading at IOS in the morning after La Perouse cruise is offloaded. Hopefully leave during the afternoon when all loading completed. Do Haro and Juan de Fuca Strait rosette casts then keep going to P1 and the rest of the Line.
~June 16	Arrive at Station Papa. Deploy mooring PA-008. Recover mooring PA-007. Many rosettes, bongos, multinet, go-flos.
~June 20	Leave Station Papa.
June 23	Arrive at IOS and offload.

Cruise track



Deck plan to follow, but basically it will be:

BOAT DECK:

Hawboldt for CTD.

Hydro winch (with 4500m Kevlar line).

Rad-Van.

AFT-DECK:

Hawboldt on pad E for Multinet and spare CTD winch.

Bongo/UBC pump winch on pad F.

20' chemistry container on port side.

Trace Metal container on Pads C and D.