



Regional Operations Centre, Canadian Coast Guard Western



Science Cruise Report: PAC 2018-005

Report last updated: 2018-04-17 20:06:07

Link to Original Plan: [https://www.waterproperties.ca/requests/cruiseplanview.php?](https://www.waterproperties.ca/requests/cruiseplanview.php?cruiseid=2018-005)

cruiseid=2018-005

Department/Group:	Fisheries and Oceans Canada, OSD
Other Participating Groups:	Visitors from Tsleil-Waututh FN and Metro Vancouver
Science Cruise Number:	PAC 2018-005
Alternative Cruise Number:	
Ship's Patrol Number:	
Name of Vessel/Platform:	Vector
Dates:	From: Thursday 01-Feb-2018 To: Saturday 10-Feb-2018
Chief Scientist:	Peter Chandler , 250-363-6750, peter.chandler@dfo-mpo.gc.ca
Master:	Capt. Zbigniew Chmara
Fishing Master:	Bosun Mike Petrie
Appropriateness of Vessel:	Excellent

Time Allocations

Originally Allocated Days **9.00**

Accounting below is given in days and should match the originally allocated days above.

Weather	+ 0.00	unexpected given the time of year
SAR	+ 0.10	Vector1 deployed to search for missing boater, found by another searcher
CCG Refueling	+ 0.00	
CCG Ship Repair & Maintenance	+ 0.00	
CCG Crew Changes	+ 0.00	
CCG Other	+ 0.00	
Science Operations	+ 6.00	carried out SOG water properties survey north of station 59; 17 stations in Vancouver Harbour / Indian Arm, 2 bottom cores off Vancouver
Science Equipment Loading/Unloading	+ 2.00	delayed sailing to work with CCG IT to run wiring and setup science lab after refit, time required after cruise to evaluate proposed alterations to lab configuration
Science Other	+ 0.00	
Days Gained	+ 0.90	returned when operations complete, earlier than planned as there were no weather delays
Days Grand Total	= 9.00	

Time Allocation Comments:

The original cruise plan included MVP work to be undertaken in collaboration with UVic in the Strait of Juan de Fuca and Indian Arm and mooring operations in Vancouver Harbour: both of these program were voluntarily withdrawn by the originating authority.

Additions to the program included two box cores near Vancouver, and water properties sampling in Indian Arm with visitors from the Tsleil-Waututh FN.

Because the Vector underwent major renovations to the science lab the initial day days of the cruise were spent confirming network wiring, and accommodating changes to the lab to support the requirements of the various DFO science program. A summary of these changes, and suggested improvemenst, are being submitted under separate cover.

Cruise Events

Areas of Operations

Juan de Fuca, Strait of Georgia

Scientific Personnel

Male - Name	Notes (Affiliation, Watches, Duties, etc)
Peter Chandler	chief scientist
Mark Belton	ctd, nets, oxygen
Lucius Perreault	mooring tech
Scott Rose	senior tech
Steve Romaine	ctd, oxy, lab review
Female - Name	Notes (Affiliation, Watches, Duties, etc)
Nina Nemcek	filtering
Cindy Wright	coring

Event Log

1 Feb : Alongside - lab not accessible to science due to ongoing CCG IT work, load vessel with science equipment suitable for storage on outer decks (rosette, nets, box corer, etc...)

2 Feb : Load lab with science gear. Depart Pat Bay 14:10 to carryout test cast in Saanich Inlet (flourometer on rosette not working, replace and confirm seriveability of all roaette instrumentation). Science and CCG IT tech work to carryout circuit testing of lab wiring (e.g. TSG). Complete super-rosette/net at station 59 and proceed to sample to the north.

3 Feb: Continue to carry out water properties sampling survey in standard south to north pattern. Brief interruption to science program during SAR on Saturday morning. Weather very suitable, no requirment for weights on rosette. CCG IT tech put ashore.

4 Feb: Continue water properties survey from central to northern Strait of Georgia (including drifter releases and scor net tows).

5 Feb: Complete northern sampling and proceeed south to replicate ctd profiles on line 27. Complete four profiles in outer Vancouver Harbour and anchor in English Bay.

6 Feb: Carryout water properties sampling in Vancouver Harbour and Indian Arm. Representatives from Tsleil-Waututh FN onboard from 09:15 to 17:30. Anchor in English Bay.

7 Feb: Carryout coring operations at sites by West Van Lab and Iona outfall. Representative from MetroVancouver from 08:00 to 12:30. Proceed to Pat Bay and tie-up at 20:00.

8 Feb: Unload ship and discuss lab changes with CCG.

Scientific Equipment Report

Coring ops required sailing day change to deck plan with removal of backup ctd winch and fitting of heavy work winch.

Fluorometer on rosette failed on test cast and require replacement.

TSG required wiring modifications to get display at CTD console.

Label printer/label quality requires improvement as labels became smeared and not waterfast.

Important to store as much equipment/gear/samples out of the lab as possible to ensure sufficient space for science work, and for ship's crew to pass through lab unencumbered.

New CTD console position with five monitors and improvement over previous configuration.

Audio communication with winch operator using VHF worked well. Camera overlooking aft deck important. Camera, depth sounder, TSG, navigation displays at CTD console very helpful.

Exposure of network wires in ctd deck unit cabinet a concern.

Preferable to have ctd console space presently taken up by (TSG and CTD) computers made available by locating computers under counter or on bulkhead.

Consider replacing stand-alone label printer computer and incorporate software onto ctd computer.

The lab needs two analog clocks.

Additional coordination will be required regarding when the chest freezer is onboard and when it is stored in the hangar, especially with program changes occur away from Pat Bay.

Radioisotope Report

[Not Entered]

Scientific Successes and Concerns

All planned aspects of the science program were successfully completed. Sailing without a backup CTD winch required greater emphasis on the ability to re-terminate the ctd cable at sea. Having the SBE 25 ctd deployed from the stbd chains is useful both when the nets are being used on the aft A-frame, and when sea conditions make deploying /recovering the rosette less safe. The TSK counter on the scor nets did not work consistently.

Platform Successes and Concerns

The recent lab renovations have made the Vector an even better platform for this type of coastal oceanography work. Note: the weather was too calm to test the changes under rough conditions.

As always the ship's crew were very responsive in solving issues such as salt water hoses for washing down scor nets, and swapping the aft A-frame setup to change from the ctd, to the nets, to the box core.

Skill in positioning the ship on stations in operating areas (e.g. Indian Arm) not typically part of this survey was very helpful.

Safety Concerns

Need to co-locate safety gear such as eye wash, first aid kit, AED at one location in science lab.

Hazardous Occurrences

[Not Entered]

Other Comments

[Not Entered]

Images

[No Alternative Image Provided]

Image notes:

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