National Research Vessel Task Team Meeting – June 20, 2023

Present:

Douglas Wallace, Dalhousie University and MEOPAR

Brent Else, U Calgary & MEOPAR

Alexa Goodman, MEOPAR

Douglas Bancroft, CSSF

Heather Reader, MUN

Marc Olivier Massé, CERMIM

Richard Dewey, Ocean Networks Canada/University of Victoria (Last meeting, retiring; Benoît Pirenne replacing)

Marlon Lewis, Dalhousie University and Amundsen Science

Isaias Peraza, DRDC

CJ Mundy, U Manitoba

Erik Lapointe, Reformar

Clare Reimers, Oregon State University

Michelle Payne, NSERC

Tom Henheffer, ARF

Thomas Surian, ARF

Christine Cox, ARF

Breanna Gricken, NSERC

Jennifer Vollrath, NRCan on behalf of Daniel Lebel on behalf of Stephen Locke

Alexandre Forest, Amundsen Science

Shannon Stuyt, DFO

Absent:

Rodrigo Menafra, MEOPAR

Guillaume St. Onge, ISMER

Greg Cutter, Old Dominion University

Melissa Anderson, University of Toronto

Philippe Archambault, ArcticNet

Marcel Babin, Takuvik International Research Laboratory (U Laval & CNRS) and Amundsen Science

Kent Moore, University of Toronto

Marc Delisle, Fisheries and Oceans Canada

Philippe Tortell, University of British Colombia

Anthony Redican, Fisheries and Oceans Canada

Anne de Vernal, UQAM

Anthony Redican, DFO

Erin Bertrand, Dalhousie University

Suzanne Carbotte, Colombia University

Rachel Chang, Dalhousie University

Jay Cullen, University of Victoria

Susan Evans, CFI

Geoff Green, Students on Ice

Casey Hubert, University of Calgary

John Jamieson, Memorial University and CCOD

Erin MacNeil, DRDC
Paul Myers, CNC-SCOR
Michelle Payne, NSERC
Kenn Rankine, NSERC
Carey Ryan, Nova Scotia Offshore Energy Research Association
Feiyue Wang, University of Manitoba

Welcome: The Chair for this meeting, Doug Bancroft, welcomed members and observers. The Chair noted that there was still no news about MEOPAR's application to the Strategic Science Fund. Alexa Goodman then introduced new members: Marc Olivier Massé, CERMIM; CJ Mundy, University of Manitoba; Heather Reader, Memorial University of Newfoundland; Isaias Peraza, DRDC, Head of Engineering, Research and Development; Tom Henheffer, Christine Cox, and Thomas Surian, Arctic Research Foundation.

User Demand Survey Results: A short summary were presented by Doug Wallace based on the presentation at the NRVTT workshop held during the recent ORCA meeting in St. John's. Heather Reader added further context based on their experience with accessing ship time and emphasised the need for creative collaborations and alternative sampling plans to ensure access and data collection.

A short report on the ORCA presentation from Doug W centered on the discussion of challenges as well as new opportunities for accessing ship time, and also on how to better leverage visits of international research vessels to Canadian waters to maximize value for Canadian researchers through cooperation on these international research cruises. Read the <u>full session debrief here</u>.

Doug noted that in Ireland, for example, the Marine Institute's "Foreign Vessel Observer Scheme" webpage includes a list of proposed visits of foreign vessels so that Irish scientists can express interest in participation.

https://www.marine.ie/site-area/infrastructure-facilities/research-vessels/foreign-vessel-surveys/foreign-vessel-observer

The web page facilitate collaboration and ensures Irish researchers are aware of work being done in their waters which might lead to useful cooperation. That level of organization does not exist yet in Canada, where diplomatic permission is granted and managed by Global Affairs Canada, using following consultation with DFO. In the subsequent discussion it was noted that NRCan is trying to leverage and utilize international research vessel visits, however there remains a need for coordination of access to joining these cruises and both collecting and sharing the data.

It was also noted that better information sharing and coordination of access for Canadian researchers to visiting foreign vessels, might optimize the quality of research conducted and promote international collaboration.

A multi-year planning perspective for vessel planning including optimizing access to the two Coast Guard AOPS (Arctic and Offshore Patrol Ships) that will be configured for ocean science.

Doug Bancroft outlined a multi-year timetable that could position the Canadian ocean research community with improved access to the ocean, including via coordinated outfitting of, and access to two new AOPS that are to be delivered to the Coast Guard. The timetable assumes that MEOPAR's SSF application is successful. Delivery of the two Coast Guard AOPS will likely occur midway through the first phase of the SSF funding. The next call for proposals from the Canada Foundation for Innovation is expected in 2026,

with funds anticipated to flow in 2027. The overall timing could be suited to acquiring key equipment and modular infrastructure to enhance the capacity of the Coast Guard AOPS, as well as other vessels, to support diverse ocean research nationwide.

It was noted that the Amundsen Science model is working well for sharing vessel capacity with the Coast Guard in the Arctic; could this be replicated on the East and West Coasts and centered on supporting access to the two new vessels (and others)? The NRVTT, potentially, could provide the coordination amongst partners from across Canada required to create a national plan, building as appropriate on region-centred efforts. Towards the end of the first planned SSF funding period, it is anticipated that there will be a new call for Major Science Infrastructures (MSI) which could be used to acquire and maintain an interoperable pool of equipment for ocean research. The first SSF period and the NRVTT provides an opportunity for the Canadian research community to plan to respond to that call with appropriate organizational structures and management procedures.

Discussion of the relevance of MORI moving forward. It was noted that following intense, use of multiple Modular Ocean Research Infrastructure units during a series of cruises on the PSV Atlantic Condor over the past 2 years, the bulk of the equipment is now lying unused at the dockside in Halifax due to a lack of funding for ship time and, perhaps, a lack of vision or coordination. This includes the innovative, containerized CTD/ rosette system that was designed and constructed by Hawboldt Industries of Chester, Nova Scotia.

On the other hand, despite a lack of coordinated use of MORI in 2023, three of the MORI units will be used this summer on separate deployments. One containerized laboratory will be used by Students on Ice, aboard the Polar Prince along the Labrador coast, another is deployed on the Atlantic Condor which will be working on the Pacific coast, under contract to DFO, this summer. Another laboratory container will be used on the the Coriolis II in the Gulf of St. Lawrence. The ability to utilize the MORI units both individually and as a collection, on smaller and larger vessels of diverse types, emphasises the flexibility that this type of shared infrastructure provides for the research community.

Marc-Olivier Massé from Centre de recherche sur les milieux insulaires et maritimes (<u>CERMIM</u>) presented a novel public-private partnership model with a fish harvester, through which it was possible to assist a private operator to obtain certification from Transport Canada for use of a fishing vessel based on the Magdalen Islands for research during the 'off season' thereby improving vessel access for researchers in the Gullf of St. Lawrence. Leveraging of coastal community assets, and working on a partnership basis, rather than a charter model, improves long term sustainability of the business model and provides cobenefits.

NRVTT next steps. Doug W. noted that it has been suggested that an in-person meeting would be helpful to convene a group that can determine next steps for the NRVTT (e.g. a multi-year plan, see above) and best coordinate resources. This should take place before the end of the fiscal year (March 2024) and could perhaps leverage an existing meeting (e.g. in Halifax or Ottawa). Goals: Long range planning of CFI and MSI bids over the next 4 years; improving coordination and use of existing assets; improved coordination of access for Canadian researchers to visiting foreign vessels. This will be revisited during the next meeting where timing and locations will be proposed.

NRVTT Co-chairs. The two Dougs expressed their thanks to Dr. Melissa Anderson (U. Toronto) who recently stepped down as a co-chair of the NRVTT. There is an immediate need for one new co-chair to replace Melissa and, in the medium term, leadership should be renewed. The leadership should have diversity of backgrounds, age, gender, geography, etc.. Self-nominations by individuals interested in acting

as co-chairs of the NRVTT into the future are welcome. These can be communicated to Alexa Goodman. Also, given the NRVTT appears to be heading towards a longer existence than originally planned, a more formal management and support structure for its activities is likely to be developed by MEOPAR, assuming SSF support is forthcoming.

Next meeting (online) will take place on September 26, 2023 from 1 to 2:30 PM Atlantic Time.