

# C I S M a R T

CANADIAN NETWORK FOR INNOVATIVE SHIPBUILDING, MARINE RESEARCH AND TRAINING | RÉSEAU CANADIEN POUR L'INNOVATION DANS LA CONSTRUCTION NAVALE, LA RECHERCHE MARINE ET LA FORMATION

## Online Workshop on Advancing Canadian Marine Technology

In Partnership with



November 25-26, 2020

Zoom Webinar and Zoom Meeting  
12:30 pm – 5:00 pm Newfoundland Time Zone

### Overall objectives of the workshop:

- CISMART Updates
- Day 1: Ship underwater radiated noise – progress and follow-on projects
- Day 2: Maritime autonomous surface ships – progress and follow-on projects

### November 25, 2020

|                                      |  |   |
|--------------------------------------|--|---|
| 12:30 – 12:40                        | <i>Opening Remarks and CISMART Updates</i><br>(Speaker, Wei Qiu, Chair, Interim Board of CISMART)  | <ul style="list-style-type: none"> <li>• Roger Basu is the Workshop Facilitator</li> </ul>  |
| 12:40 – 13:00<br>including 5 min Q&A | <i>Update on Ship Underwater Noise and Transport Canada Innovation Centre Initiatives</i><br>(Speaker: Abigail Fyfe, Transport Canada)                   | <ul style="list-style-type: none"> <li>• Current projects</li> <li>• Plan for follow-on projects</li> </ul>                                     |
| 13:00 – 13:10                        | <i>Marine Acoustic Research Station (MARS) in the St. Lawrence</i><br>(Panelist: Guillaume St-Onge, Institut des sciences de la mer de Rimouski (ISMER)) | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 13:50pm</li> </ul>   |
| 13:10 – 13:20                        | <i>Real-time Hydrophone Deployment in Boundary Pass in the Salish Sea</i><br>(Panelist: Dave Hannay, JASCO)  | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 13:50pm</li> </ul>   |
| 13:20 – 13:30                        | <i>Queen of Oak Bay URN and GHG Reduction with Hull Maintenance</i><br>(Panelist: Chanwoo Bae, BC Ferry)   | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 13:50pm</li> </ul>   |
| 13:30 – 13:40                        | <i>URN and GHG Reduction Program for Canada's Inshore Fishing Craft</i><br>(Panelist: Mo AlGermozi, Graphite; Jim Covill, Lloyd's Register)              | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 13:50pm</li> </ul>   |
| 13:40 – 13:50                        | <i>URN and GHG Reduction for Small Vessel with Side-by-Side Diesel and Electric Propulsion System</i><br>(Panelist: Sue Molloy, Glasocean)               | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 13:50pm</li> </ul>   |
| 13:50 – 14:10                        | Q&A  | <ul style="list-style-type: none"> <li>• Q&amp;A for the panelists above.</li> <li>• Please write your questions in the Webinar Chat</li> </ul> |
| 14:10 – 14:25                        | Break  |   |
| 14:25 – 14:35                        | <i>URN Monitoring for Orca-Class Training Vessel</i><br>(Panelist: Layton Gilroy, DRDC Atlantic)   | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>   |
| 14:35 – 14:45                        | <i>Cavitation Monitoring and Management with KINETIX</i><br>(Panelist: Tim Rees and Tom Gunston, AllSalt Maritime)                                       | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>   |

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| <b>14:45 – 14:55</b> | <i>Feasibility of real-time shipboard cavitation monitoring and management</i><br>(Panelist: Bruce Martin, JASCO)                                    | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>  |
| <b>14:55 – 15:05</b> | <i>Support ISO TC43/SC3 to Develop Measurement Standard for Shallow Water Vessel Source Level Measurements</i><br>(Panelist: Alex McGillvray, JASCO) | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>  |
| <b>15:05 – 15:15</b> | <i>URN Technical Bibliography</i><br>(Panelist: Don MacPherson, HydroComp)   | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>  |
| <b>15:15 – 15:25</b> | <i>Vessel URN Project Concept</i><br>(Panelist: Paul Blomerus, Clear Seas)   | <ul style="list-style-type: none"> <li>• Presentation only</li> <li>• Q&amp;A at 15:25pm</li> </ul>  |
| <b>15:25 – 15:45</b> | <b>Q&amp;A</b>   | <ul style="list-style-type: none"> <li>• Q&amp;A for the panelists above.</li> <li>• Please write your questions in the Webinar Chat</li> <li>• At the end of Q&amp;A, all the participants and panelists will join the Zoom Meeting for the rest of Day 1 program.</li> <li>• The link to the Zoom Meeting is provided in Chat of the Webinar.</li> </ul> |
| <b>15:45 – 15:50</b> | <i>Objectives and Guidelines for the Breakout Sessions</i><br>(Roger Basu)   | <ul style="list-style-type: none"> <li>• Provide context for breakout discussions – looking for themes for next RFP</li> <li>• Breakout sessions will be held at Zoom Meeting.</li> <li>• See instructions for the breakout sessions.</li> </ul>   |
| <b>15:50 – 16:30</b> | <i>Breakout Sessions (Five Breakout Groups)</i>  | <ul style="list-style-type: none"> <li>• In Zoom Meeting</li> </ul>  |
| <b>16:30 - 17:00</b> | <i>Plenary Summaries by Group Leaders / Concluding Remarks for Day 1</i>   |  |

**DRAFT**

## Online Workshop on Advancing Canadian Marine Technology

November 26, 2020

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|---------------|--|--|
| 12:30 – 12:45 | <i>Overview of NRC's Ocean Program</i><br>(Speaker: Marie-Chantal Ross / Fraser Winsor, NRC)   | <ul style="list-style-type: none"> <li>Including a description of the Grant opportunity through CISMaRT to enable MASS</li> </ul>  |
| 12:45 – 13:00 | <i>Overview of TC's MASS Activities</i><br>(Speaker: Howard Posluns, Transport Canada)   | <ul style="list-style-type: none"> <li>Including national and international updates</li> </ul>   |
| 13:00 – 13:10 | <i>Use of Machine Learning for Identification and Characterization of Vessel Operational Best Practices</i><br>(Speaker: Allison Kennedy, NRC)                                 | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 13:10 – 13:20 | <i>Digital Twin Technology for Autonomous Operation in Harsh Environment</i><br>(Speaker: Dong Cheol Seo, NRC)   | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 13:20 – 13:30 | <i>Prediction of Ice in the Canadian Arctic and St Lawrence Waterway Using Artificial Intelligence</i><br>(Speaker: Philippe Lamontagne, NRC)                                  | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 13:30 – 13:40 | <i>Development of Ship Situational Awareness in Ice</i><br>(Speaker: Matt Garvin, NRC)   | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 13:40 – 13:50 | <i>MASS Navigation in Ice</i><br>(Speaker: Bob Gash, NRC)  | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 13:50 – 14:00 | <i>St Lawrence Seaway Autonomous Marine Testbed</i><br>(Speaker: Kevin Murrant, NRC)   | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 14:00 – 14:10 | <i>Extension of Driving Automation Research Activities at NRC to the Marine Use Case</i><br>(Speaker: Taufiq Rahman, NRC)  | <ul style="list-style-type: none"> <li>Presentation only</li> <li>Q&amp;A at 14:10pm</li> </ul>  |
| 14:10 – 14:30 | <b>Q&amp;A</b>   | <ul style="list-style-type: none"> <li>Q&amp;A for the NRC speakers above</li> <li>Please write your questions in the Webinar Chat</li> </ul>  |
| 14:30 – 15:30 | <i>Panel Discussions</i><br>Panelists:<br>Dave Belisle, Algoma<br>Brian Veitch, Memorial University<br>Vince den Hertog, Robert Allan Ltd.<br>Ørnulf Jan Rødseth, SINTEF Ocean | <ul style="list-style-type: none"> <li>View of the MASS work currently underway in Canada</li> <li>Suggestions for the follow-on projects to expand and enable the MASS operations in Canadian waters</li> <li>Questions should be addressed to panelists through the Webinar Q&amp;A</li> <li>At the end of panel discussions, all the participants and panelists will join the Zoom Meeting</li> </ul> |

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|                      |   | <p>for the rest of Day 2 program.</p> <ul style="list-style-type: none"> <li>The link to the Zoom Meeting is provided in Chat of the Webinar.</li> </ul> |
| <b>15:30 – 15:35</b> | <i>Objectives and Guidelines for the Breakout Sessions (Roger Basu)</i> | <ul style="list-style-type: none"> <li>Breakout sessions will be held at Zoom Meeting.</li> <li>See instructions for the breakout sessions.</li> </ul>   |
| <b>15:35 – 16:35</b> | <i>Breakout Sessions (Five Breakout Groups)</i>                         | <ul style="list-style-type: none"> <li>In Zoom Meeting</li> </ul>  |
| <b>16:35 - 16:55</b> | <i>Plenary Summaries by Group Leaders</i>                               | <ul style="list-style-type: none"> <li>In Zoom Meeting</li> </ul>  |
| <b>16:55 – 17:00</b> | <i>Next Steps and Concluding Remarks</i>                                |  |

**DRAFT V20**