

Update on Current Efforts at the IMO to Address Underwater Vessel Noise

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Presentation to the Polar Maritime Seminar, co-sponsored by the IMO and The Nautical Institute

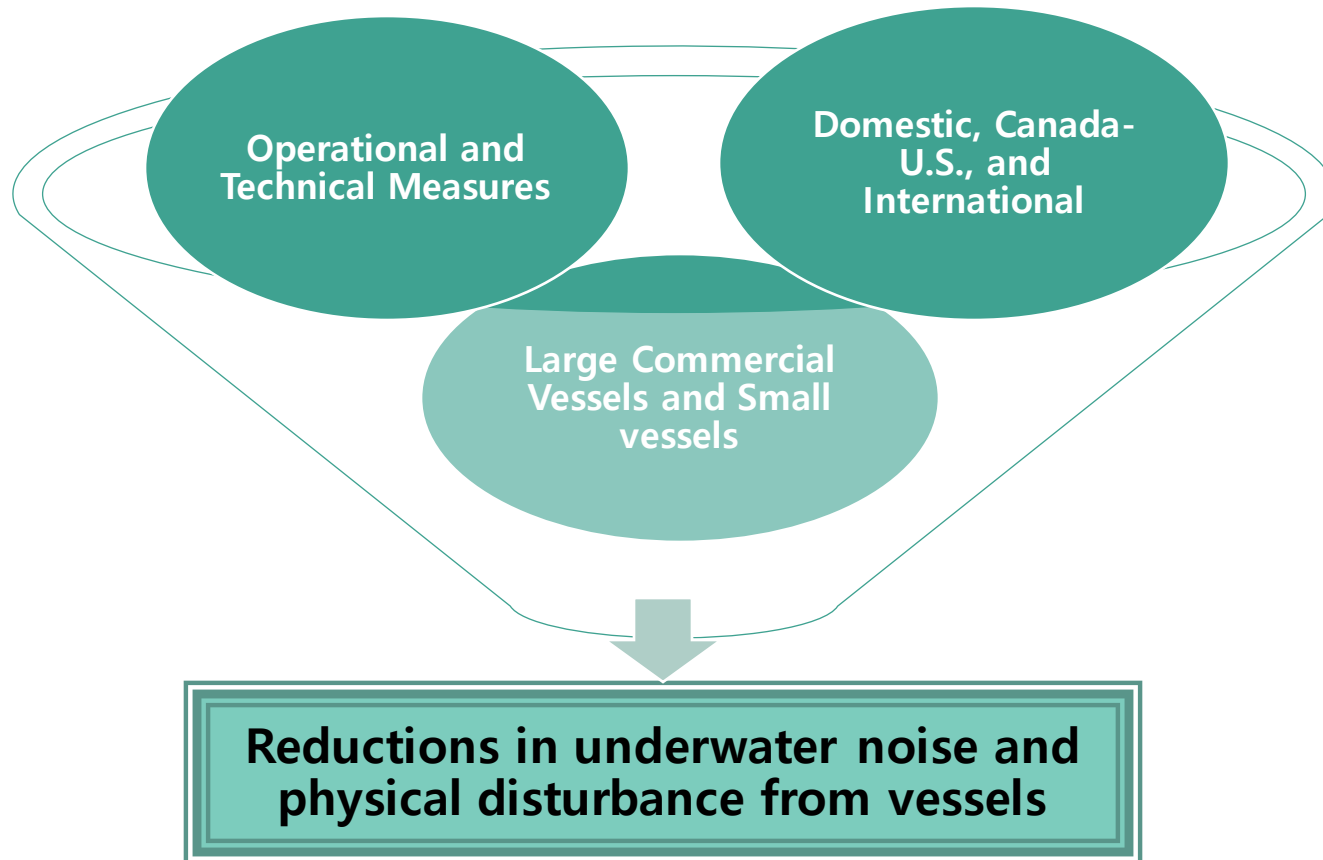
October 31 – November 1st, 2022



Outline

1. Canada's Efforts to Addressing Underwater Radiated Noise (URN)
2. History of URN at the IMO
3. Correspondence Group on the Review of the URN Guidelines
4. Conclusion

Canada's Approach



Canada's involvement in the Arctic

Canada's Arctic Transportation Policy Framework

- Proposed program that supports the need for monitoring vessel traffic in the Arctic and its effects on the environment to inform proactive decision-making.

Cumulative Effects of Marine Shipping (CEMS) initiative

- Northern Low Impact Shipping Corridors (NLISC) program – developing updated maps of sensitive areas in consultation with Indigenous and Inuit communities.
- Cambridge Bay pilot project – studying the potential marine shipping impacts on the environment and coastal communities using hydrophone data.



Canada's involvement in the Arctic

Arctic Council: Protection of the Marine Environment (PAME) Committee

- Two-phased project on URN, co-led by Canada, US and WWF:
 - First phase quantified the spatial distribution of underwater noise from shipping across the Arctic; identified trends; and estimated excess noise in regions of concentrations of shipping and Arctic marine mammals
 - Second phase currently underway, expected completion in 2023.
 - Developing a model to predict shipping noise conditions in 2030; evaluates noise implications of different mitigation scenarios.



Background - Work at the IMO

2014

- IMO adopted the voluntary *Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life* (MEPC.1/Circ.833)

2017

- MEPC 71 invites interested countries to enhance the understanding of ship noise and measures to mitigate it

2018

- MEPC 72 case studies to enhance understanding of ship noise and measures to mitigate it
- MEPC 73 invite interested parties and experts to an international workshop
- Technical workshop in Halifax, Canada on quiet ships (foundation for international workshop)

2019

- International workshop at IMO HQ: Quieting Ships to Protect the Marine Environment
- Benchmarking Study on the implementation/uptake of the Guidelines
- MEPC 74 highlights various international efforts, outcomes of the workshop and review of underwater radiated noise mitigation measures from ships
- Policy workshop held in Canada to help shape new work proposal

2020

- MEPC 75 Canada, Australia and the US propose a new output to undertake a review of the Guidelines (delayed due to COVID)

2021

- MEPC 76 proposal and terms of reference were approved and included in the agenda of SDC 8, with a target completion date of 2023 (MEPC 80)

2022

- SDC 8 Meeting - Compendium and scoping document submitted by Canada, NZ, UK and US. Canada also submitted a proposed workplan.
- Correspondence Group for the Review of the URN Guidelines

2022 IMO Work at the Ship Design and Construction (SDC) Sub-committee

January

- URN Webinar – Co-hosted with NGOs
- SDC 8 meeting – Developed a workplan to achieve the key deliverables
- Agreed to establish a Correspondence Group chaired by Canada to progress work between sessions

March-September

- Over 40 participants in the Correspondence Group
- Final report has been submitted to IMO Secretariat in October 2022, ahead of the SDC 9 meeting in January 2023.

Correspondence Group – *Key Terms of Reference*

Enable engagement of Inuit and other indigenous communities and the incorporation of Indigenous Knowledge

Amendments of the URN Guidelines

Identifying ways to increase the awareness, uptake and implementation of the Guidelines

Identifying actions to further prevent and reduce URN and considering the impact and interrelation of other regulatory goals (ship safety, energy efficiency, etc.)

Identifying comparable and common means of measuring, analyzing and reporting URN emissions from ships

Identifying areas that require further assessment and research, and consideration of next steps

Barriers to the Uptake and Implementation of the Guidelines

- ✓ Current Guidelines are too vague and lack specific and detailed information on the concrete problems and solutions, scope and target audience;
- ✓ Lack of awareness of the Guidelines by industry, in particular in the initial design stages of a ship;
- ✓ Lack of a clear, consistent and harmonized methodology for measurement and the need for baselines;
- ✓ Non-mandatory measures, low priority for industry, limited resources available, lack of incentives
- ✓ Limited access to knowledge and research, not broadly applied, in particular in shipyards or by marine equipment producers

Proposed Amendments to the Guidelines

Progress was made to improve structure, effectiveness and clarity of the Guidelines

- **STRUCTURE** organized following Noise Management Planning, including a number of new sections
- **AUDIENCES** differentiates the roles of designers, shipowners and operators from Member/coastal/port states ('Maritime Administrations')
- **APPLICATION** most members agreed to extend the Guidelines to non-commercial ships of all sizes and types.
- **MEASURES** reflect the current state of knowledge as well as advances in technologies to reduce URN impacts from shipping

Proposals specific to the Arctic

- Considerations raised during the CG process:
 - Arctic is a uniquely sensitive environment, due to a combination of factors, in addition to cumulative impacts associated with climate change
 - Arctic references should be included in the Guidelines, particularly with respect to operational approaches.
- In the latest version of the revised Guidelines, proposed wording is being put forward under “Voyage planning” to include a review of sensitive areas, including Inuit Nunaat (Arctic).
- Members opinions differ on whether ambient/regional considerations should be included - Focus of the Guidelines should stay on design and operation of the vessel.

Questions / Discussion remaining

- Feasibility of developing UNMP while URN requirements are yet to be defined; concerns also raised about adding an administrative burden on shipowners.
- If/how regional considerations should be included, including Arctic references.
- Some sections need more work: Goals setting, URN prediction, Evaluation and Monitoring
- The proposed revised Guidelines form a basis for further work at SDC 9. All sections are still open for further discussion and amendment.

Next steps at the IMO

Oct
2022

- **Submit CG's final report to IMO:** Includes a summary of CG discussions and process of work, recommendations, as well as an updated draft of revised URN Guidelines

January
2023

- **SDC 9 meeting** : Propose to establish a WG to continue advancing the work based on the draft Guidelines provided in final report;
- Finalize and prioritize the list of provisional suggestions to increase the awareness, uptake and implementation of the Guidelines

Other proposed recommendations to SDC 9 include:

- Consider the unresolved drafting proposals in the updated Guidelines, with a view to finalization;
- Further develop the 2 annexes of the proposed draft Guidelines, with a view to finalization (flowchart/ visual support for developing NMPs; matrix of EE compliance measures and URN relationships)
- Finalize and prioritize the provisional list of suggested next steps to further prevent and reduce URN from shipping.

Conclusion

- Solutions must reflect complexity of the issue and differences in vessels
- There can be co-benefits between reducing noise and fuel efficiency – need to identify which measures are feasible
- Feasibility of measures must consider economic, cultural, safety, and environmental perspectives
- Industry, governments, ports, NGOs and Indigenous communities play an important role in identifying, analyzing and testing potential solutions





Thank you!

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