

SUB-COMMITTEE ON SHIP DESIGN AND
CONSTRUCTION
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Agenda item 5

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**REVIEW OF THE GUIDELINES FOR THE REDUCTION OF UNDERWATER NOISE
(MEPC.1/CIRC.833) AND IDENTIFICATION OF NEXT STEPS**

**Comments on document SDC 9/5 – Report of the Correspondence Group on the
Review of the Underwater Noise Guidelines**

Submitted by Inuit Circumpolar Council (ICC)

SUMMARY

Executive summary: This document comments on document SDC 9/5, primarily supporting the general approach proposed and emphasizes areas of particular interest to the Inuit Circumpolar Council (ICC). It also identifies next steps to be considered to further prevent and reduce underwater radiated noise impacts from shipping, including the need to ensure increased uptake of the guidelines and consideration of mandatory measures within a programme of action as next steps.

*Strategic direction, 1
if applicable:*

Output: 1.6

Action to be taken: Paragraph 11

Related documents: MEPC 75/14, MEPC 75/14/2; SDC 8/14, SDC 8/14/2; SDC 9/INF.2 and SDC 9/5

Introduction

1 This document is submitted in accordance with paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.2). It comments on document SDC 9/5 (Canada) on the Report of the Correspondence Group on the Review of the Underwater Noise Guidelines (CG).

2 Document SDC 9/5 reports on the work of the CG and proposes an approach for updating the *Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.833). Inuit Circumpolar Council (ICC) supports the general approach of SDC 9/5 but would like to emphasize areas of particular interest to ICC, and the need to include specific language to reflect Indigenous approaches, including the inclusion of Indigenous Knowledge, for the reduction of underwater noise from ships.

3 It should be emphasized that document SDC 9/5, paragraph 7 includes a reference to the terms of reference of the CG on the Review of the Underwater Noise Guidelines which instructed the Group to: "enable engagement of Inuit and other Indigenous communities and the incorporation of Indigenous Knowledge." Document SDC 9/5, paragraph 36 also includes a statement on the progress by the CG towards meeting this commitment: "...the Group noted that the Inuit Circumpolar Council (ICC) was an active participant of the Group and that Group members were encouraged to consult with Inuit and Indigenous communities before submitting their input to the Group. Some language in the revised Guidelines was also proposed and considered to reflect the incorporation of Indigenous Knowledge."

Underwater Noise in Inuit Nunaat (Inuit Homeland)

4 During the work of the CG, ICC input focused mainly on Arctic-specific characteristics that affect noise propagation and sensitivity; the importance of implementing operational measures, particularly around sensitive areas, seasonality, and Indigenous hunting rights and the importance of Indigenous Knowledge and its definition.

5 ICC suggested a stand-alone section/annex in the guidelines related to Inuit Nunaat (Inuit Homeland) and operations in the Arctic, which would articulate the unique operating environment for vessels and related impacts of underwater noise. Suggested text included:

- "Inuit Nunaat is a unique environment and adverse impacts to marine wildlife in this area from shipping noise may be significantly increased as a result.
- Sound levels throughout Inuit Nunaat are lower than elsewhere¹. The geography and properties of the surrounding marine areas are different to non-polar waters. Sea ice together with the shallowness of the seabed, water temperature and changing salinity gradients affect underwater sound propagation.² Also, ice breaking and increases in commercial shipping has a higher potential for sound disturbance than in other areas of the ocean.³
- Inuit Nunaat is home to endemic marine wildlife that rely on sound for their biological activity and may be uniquely negatively impacted by the introduction of underwater radiated noise from commercial ships. Behavioural changes as a result of sound from commercial ships have been observed in marine wildlife⁴, representing significant risks to Indigenous communities for whom harvesting of these marine species is fundamental to their livelihoods. "

Noise Management Planning in Inuit Nunaat:

- "Vessels operating in Inuit Nunaat should consider the special characteristics of the region and the activities within them which could increase the impacts of underwater radiated noise. This includes the presence of noise-sensitive species, and potential interference with Indigenous hunting rights.

¹ [Underwater Noise Pollution from Shipping in the Arctic, Protection of the Arctic Marine Environment Working Group \(PAME\), May 2021.](#)

² https://link.springer.com/chapter/10.1007/978-3-030-44975-9_6

³ [Underwater noise pollution from ships in the Arctic \(PAME, 2021\)](#)

⁴ <https://www.sciencedirect.com/science/article/pii/S096456911500160X>

- Inuit and Indigenous peoples have extensive knowledge about underwater radiated noise impacts on marine wildlife as well as sensitive areas. This knowledge should be utilized by mariners in voyage planning and operations in order to minimize impacts to sensitive marine species and local communities.⁵
- Operational approaches⁶ could be particularly important for ships that are unable to reduce shipping noise in Inuit Nunaat (e.g. icebreakers), and for all ships that operate in sensitive marine areas where additional measures need to be taken to decrease the adverse impacts of shipping noise on marine wildlife. Ship speed reduction has been proven to significantly decrease a ship's underwater radiated noise emissions and should be adopted more broadly in Inuit Nunaat waters.⁷
- Shipowners and operators should contribute to monitoring impacts of underwater radiated noise from shipping on marine wildlife and results should be utilized to further support a reduction of underwater radiated noise impacts to wildlife. This type of monitoring should utilize both Indigenous Knowledge and scientific methods where appropriate. Monitoring data should be made available to researchers and Indigenous communities affected by ship noise.
- Ship operators and shipowners transiting Inuit Nunaat waters should study and monitor their underwater radiated noise emissions and their cavitation patterns to optimize their operations and reduce their acoustic signature.
- Ship operators and shipowners transiting Inuit Nunaat waters should consider retrofitting vessels with technology that could help reduce their underwater radiated noise emissions. This includes the use of electric engines or flow control devices attached to vessel hulls.
- Efforts should be made to support community-led shipping governance efforts, including building Inuit capacity and infrastructure to understand and manage underwater radiated noise from shipping and its impacts on marine species and coastal communities."

6 ICC also provided definitions of both Inuit Nunaat and Indigenous Knowledge:

- "Inuit Nunaat⁸ - is an area composed of Inuit Nunangat, Canada; Alaska, USA; Greenland, Denmark; and Chukotka, Russian Federation.
- Indigenous Knowledge is a systematic way of thinking applied to phenomena across biological, physical, cultural, and spiritual systems. It includes insights based on evidence and acquired through direct and long-term experiences and extensive and multigenerational observation, lessons, and skills. It has developed over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation. Under this definition, Indigenous Knowledge goes beyond observations and ecological knowledge, offering a unique 'way of knowing'.⁹

⁵ <https://www.qia.ca/marine-hunting/>

⁶ https://irc.inuvialuit.com/sites/default/files/2021-02/PVM%20Booklet_final2021.pdf

⁷ https://publications.gc.ca/collections/collection_2021/mpo-dfo/Fs152-9-2021-5-eng.pdf

⁸ [Inuit Nunaat map](#)

⁹ [Underwater noise pollution from ships in the Arctic \(PAME, 2021\)](#)

Proposal for next steps

7 As identified during discussions at SDC 8 (SDC 8/WP.8, paragraph 20) and a study of the current underwater noise guidelines conducted by Canada and the World Maritime University (SDC 8/14/1, paragraph 4) there has been minimal uptake by vessel operators of the IMO guidelines to reduce underwater radiated noise. With increased vessel traffic in the Arctic,¹⁰ along with associated noise levels,¹¹ it is urgent that increased uptake of the updated guidelines is ensured.

8 ICC therefore suggests the Sub-Committee consider the inclusion of mandatory measures within a programme of action as next steps, to ensure noise levels and impacts on marine life in Inuit Nunaat, and globally, are significantly reduced.

9 In light of the requirement of the Sub-Committee to enable the engagement of Inuit and inclusion of Indigenous Knowledge, ICC suggests the Sub-Committee incorporate a wider range of suggestions that were proposed during the work of the CG by ICC and consider an annex to the guidelines which would articulate these suggestions.

10 ICC would like to thank Canada for their coordination of the CG and the inclusion of some of ICC's suggestions to update the voluntary guidelines.

Action requested of the Sub-Committee

11 The Sub-Committee is invited to consider the elements provided in paragraphs 7 to 9 above and take action, as appropriate.

¹⁰ [Arctic Council's PAME working Group](#)

¹¹ [Arctic Council's PAME Working Group](#)