Written evidence submitted by Professor Basil Germond and Professor Neeraj Suri

Information on the respondents

Professor Basil Germond is a Chair in International Security at Lancaster University with over 15 years of experience as a researcher in naval and maritime affairs. He has widely published on maritime security, seapower, navies, and the maritime dimension of Global Britain. He participated in the consultation process for the drafting of the 2022 UK *National Strategy for Maritime Security* regarding the climate change-maritime security nexus. Distinguished Professor Neeraj Suri is a Chair in Cyber Security at Lancaster University and Co-Director of the university-wide Security Institute. He has extensive experience in transnational collaborative science. This evidence is based on our academic knowledge and understanding of the issue and is given in a personal capacity[1].

Executive summary

- Once a zone of 'peaceful cooperation', the Arctic has experienced a **strategic acceleration** resulting from the **synergistic effects** of **climate change** and **geopolitical tensions**.
- HM Government has recognised the importance of sustainability and climate resilience in the region. But **the UK has important security and defence interests in the Arctic** that must be prioritized in the current context.
- **Science collaboration** is subordinated to security interests. Although collaborative climate research in the Arctic is unlikely to infringe on national security, it will remain **politically inappropriate** to engage with Russia in the foreseeable future.
- The **UK** should capitalize on its **dual scientific and maritime power** to explore ways to **foster science-security dialogues** with like-minded states and to strengthen Western leadership of the maritime corporate sector.

1. Strategic acceleration in the Arctic

1.1. For decades, the Arctic region has benefited from a relatively low level of tensions, reflected in the concept of "**Arctic exceptionalism**", whereby environmental/economic cooperation and interstate dialogue are not hindered by, or subordinated to, military/security considerations. Due to the fragile nature of the Arctic environment and the acute effects of climate change on Arctic ecosystems, **peaceful co-existence has been instrumental in enabling scientific cooperation**. The Arctic Council, whose remit does not include security matters, epitomized this pragmatic dialogue and collaboration between otherwise antagonistic political actors.

1.2. Russia's invasion of Ukraine has increased **geopolitical tensions in the High North** and seriously damaged "Arctic exceptionalism". As a result, official channels of scientific cooperation with Russia have been shut down. The Arctic Council has suspended its activities. Yet, **the disruption of science collaboration negatively impacts on climate research and mitigation**, which concerns environmental scientists[2].

1.3. **There is a synergistic link between the impacts of climate change** (economic and commercial opportunities and the resulting environmental, safety and security challenges) **and geopolitical tensions**. Indeed, the impacts of climate change in the Arctic require strong governance mechanisms whereas Russia's antagonistic behaviour prevents efficient cooperation to tackle economic and environmental challenges and even creates risks of confrontation.

---

[1] Lancaster University webpages for Professor Basil Germond and for Professor Neeraj Suri.

[2] G. Rees, U. Bünten & N.C. Stenseth (2023), "Arctic science: resume collaborations with Russian scholars", *Nature*, 613(7943), pp.243-243 (accessed online); E. Struzik (2023), "How Tensions With Russia Are Jeopardizing Key Arctic Research", *Yale Environment 360*, Yale School of the Environment (accessed online).

1.4. In this context, **HM Government needs to carefully balance** between addressing climate change and its effects in the Arctic and responding to the military and security challenges that Russia poses in the region and beyond.

2. UK security interests in the Arctic

2.1. **The UK is not an Arctic riparian state but it has commercial interests in the region**: Unlike Antarctica, the Arctic is not a continent. As a maritime space, it is governed by international law of the seas that regulates freedom of navigation, navigation safety, resources exploitation, delimitation of exclusive economic zones, and environmental protection. It is in the UK's interest to uphold freedom of navigation and international law of the seas in the Arctic.

2.2. **The strategic importance of the Arctic**: The militarization of the Arctic impacts on the UK's defence and security interests. This requires long-term military planning to prevent and anticipate all eventualities and defend NATO's northern flank. The High North is a key strategic area for Russia (especially for its strategic submarine forces[3]) and a potential theatre of naval confrontation reminiscent of the Cold War scenarios. The High North will increasingly be the theatre of ostensible naval exercises and assertive naval diplomacy such as naval presence in contested areas, assertion/contestation of freedom of navigation or innocent passage as well as an increase in shadowing patrols. Intelligence gathering (and counterintelligence), security of communication and undersea infrastructures will feature prominently in the Arctic.

2.3. **UK capabilities and presence**: HM Government has stressed the strategic importance of the High North and the need to increase the UK's projection capabilities into this crucial NATO flank along with allies[4]. The Royal Navy has stepped up its presence in the High North, exercising with allies[5]. In October 2022, it conducted a survey operation deep into the Arctic circle[6]. Operational presence to protect offshore infrastructures has been ramped up[7]. Tracking and shadowing Russian warships and submarines demonstrates NATO's resolve[8]. With heightened tensions, following 'rules of the game' to avoid incidents when shadowing foreign warships is essential[9].

3. The dilemma of Arctic science cooperation

3.1. **Science cooperation can be an instrument for peace**[10]. The advancement of knowledge can foster international cooperation and vice versa. Furthermore, science and innovation benefit from transnational collaboration in terms of funding, infrastructure and economy of scale, data collection and circulation, confrontation and validation of knowledge[11]. Science collaboration contributes to improve research productivity[12].

---

[3] M. Boulègue (2022), "The militarization of Russian polar politics", *Chatham House Research Paper*, 06.06.22 (accessed online).

[4] MoD (2021), *Defence in a competitive age*, Presented to Parliament by the Secretary of State for Defence by Command of Her Majesty, March 2021, CP 411 (accessed online), p.19; MoD (2022), *The UK's Defence Contribution in the High North* (accessed online), p.8.

[5] Royal Navy (2022), "Royal Navy completes largest Arctic defence exercise since the Cold War", *News*, 11.04.22 (accessed online).

[6] Royal Navy (2022), "HMS Enterprise boldly goes into Arctic on scientific mission", *News*, 21.10.22 (accessed online).

[7] MoD (2022), "Joint statement by Ministers of the Joint Expeditionary Force", *Press release*, 03.10.22 (accessed online); D. Frazer (2022), "Navy steps up North Sea energy patrols", *BBC*, 05.10.22 (accessed online).

[8] Royal Navy (2022), "Royal Navy tracks movements of Russian submarines into the North Sea", *News*, 22.07.22 (accessed online).

[9] UK/Russian Federation (2021), *Protocol of Amendments to the Agreement concerning the Prevention of Incidents at Sea beyond the Territorial Sea 15 July 1986*, Presented to Parliament by the Secretary of State for Foreign, Commonwealth and Development Affairs by Command of Her Majesty, June 2021, CP 451 (accessed online).

[10] Royal Society and the American Association for the Advancement of Science (2010), *New frontiers in science diplomacy: Navigating the changing balance of power*, RS Policy document 01/10, London, Royal Society (accessed online).

3.2. However, **science is also an (implicit dual use) instrument of state power**. Science & technology has military applications and **scientific collaboration can infringe on national security** requiring appropriate strategic export control regulations[13].

3.3. Science is hardly apolitical[14]. Even non-sensitive **science collaboration (such as climate science) can be instrumentalized** to serve the political purposes of state actors[15]. In a confrontational power politics scenario, science cooperation with opponents **ceases being politically (or even morally) acceptable**. Security interests are likely to take precedence if they clash with scientific cooperation.

3.4. **Most scientific collaboration regarding climate change in the Arctic is unlikely to directly endanger national security**. Indeed, climate data are mainly benign, and the objectives of climate research and its policy and practical applications are not defence related. After all, it has even been possible to maintain some **pragmatic cooperation** on the International Space Station (ISS) albeit limited to very practical matters.

3.5. However, since **climate and marine science can provide knowledge that inform Arctic governance, resource exploitation and navigation**, there is a highly political or even security dimension to such research. Data protection, IP laws and measures to protect intellectual creations are not sufficient to deter rogue actors. **Thus, not all Arctic science can pragmatically be open source**. This raises question of ethics in research and cyber/data protection.

3.6. Additionally, it is **currently not politically possible to engage institutionally with Russia[16]**. Official channels are cut, and Western scientists are left with a moral dilemma[17]. As in the case of the ISS, there is a risk that Putin's regime instrumentalises any collaboration to try and demonstrate to the Global South that Russia is not a pariah state[18].

4. <u>The UK's role</u>:

4.1. Given the significance of the climate crisis and of the Arctic in the study of global climate change, **Arctic cooperation remains an important objective of the UK**. In its *UK's Defence Contribution in the High North*, published after start of the Ukraine war, the MoD explains that the Arctic region has enjoyed a low level of tensions and that the UK would like peaceful cooperation to continue[19] .

4.2. However, **working on the hypothesis of an enduring "Arctic exceptionalism" would be misleading**[20]. In the current geopolitical context and with the militarization of the Arctic, security

---

[11] J. Labastida (2022), "Science is essentially international - how the ERC promotes scientific cooperation", *ERC Magazine*, 27.10.22 (accessed online).
[12] "International science collaboration is on the rise – and it leads to increased productivity", *Science Business*, News byte, 11.11.21 (accessed online).
[13] HM Government (2022), *Guidance: UK strategic export controls*, 19 December 2022 (accessed online).
[14] A. Wellerstein (2018), "The myth of apolitical science", *Science*, 362(6418), p.1006.
[15] C. Kaltofen & M. Acuto (2018), "Rebalancing the encounter between science diplomacy and international relations theory", *Global Policy*, 9(3), pp.15-22; C. Rungius and T. Flink (2020), "Romancing science for global solutions: on narratives and interpretative schemas of science diplomacy", *Humanities and Social Sciences Communications*, 7(1), pp.1-10; P.B. Ruffini (2020), "Collaboration and competition: the twofold logic of science diplomacy", *The Hague Journal of Diplomacy*, 15(3), pp.371-382.
[16] K. Kornhuber et al. (2023), *The Disruption of Arctic Exceptionalism: Managing Environmental Change in Light of Russian Aggression*, DGAP Report No. 2, German Council on Foreign Relations, Berlin (accessed online); M. Paul (2022), "Arctic Repercussions of Russia's Invasion: Council on Pause, Research on Ice and Russia Frozen Out", *SWP Comment*, 2022/C, No.39 (accessed online).
[17] A. Witze (2022), "Russia's war in Ukraine forces Arctic climate projects to pivot", *Nature*, 607(7919), pp.432-432 (accessed online).
[18] L. Hurst (2022), "'Putin needs the ISS': US astronaut Scott Kelly on future of space cooperation - and chasing UFOs", *Euronews*, 17.11.2022 (accessed online).
[19] MoD (2022), *op.cit.*, p.4.
[20] J. Smith (2022), "Melting the Myth of Arctic Exceptionalism", Modern War Institute at West Point (accessed

considerations are prominent and need to be prioritized. The unity and the resolve of the West shall be upheld[21]. Thus, in the foreseeable future, Arctic science cooperation with Russia is hardly an option[22].

4.3. Additionally, **it is realistically not possible to disaggregate environmental cooperation from security considerations** anymore. Thus, the Arctic Council will not be a panacea for climate cooperation regardless of Russia's participation. The **UK has a role to play in alternative hybrid forums** such as the Arctic Circle Assembly and the IMO **where security issues can be discussed openly**.

4.4. Professor Germond's research has shown that the **global leadership of Western maritime nations** results from their ability to control the global supply chain; this control does not only depend on naval preponderance but also on Western leadership over the private, **corporate maritime sector** as well as international institutions[23].

4.5. **The UK has a comparative advantage due to its dual *scientific* and *maritime* power** that grants HM Government the ability to influence both security and scientific stakeholders. This is a key aspect since sustainability and security in the Arctic require science and innovation but also the commitment of shipping companies, maritime insurances, regulators, and enforcement agencies. In the absence of cooperation with Russia, **the UK can drive the climate-security/public-private dialogue in the Arctic**.

5. Conclusions

5.1. There is a **strategic acceleration in the Arctic** that results from two systemic changes: climate change and Russia's aggressive foreign policy. **HM Government is committed to Arctic security**, upholding freedom of navigation, defending Arctic Allies and responding to aggression[24]. This is corroborated by the recent increased operational presence in the High North.

5.2. **The resilience of the Arctic ecosystem is put at risk** due to the decreasing level of science cooperation. HM Government is committed to sustainability in the Arctic but, in the current context, **scientific and environment management cooperation with Russia entails risks, is not politically acceptable** and could even damage the West's strategy to isolate Putin's regime.

5.3. **Harnessing the synergies between science/innovation and national security** advocated by the Council for Science and Technology[25] requires leadership over civilian, corporate stakeholders. This is of essence in the maritime domain.

5.4. With its combined science and maritime power, **the UK is in a unique position to drive the necessary adaptation** of Arctic climate and security governance.

6. Recommendations

---

online).

[21] Department for Business, Energy & Industrial Strategy and George Freeman MP (2022), "Research and innovation sanctions on Russia and support for Ukraine", *News story*, 27.03.33 (accessed online).

[22] A report commissioned by Finland's Prime Minister Office (published in October 2022) came to the same conclusion: "a functioning relationship with Russia […] must not happen at any cost. In the coming years, ensuring national security must be at the heart of Finland's policy towards Russia" (accessed online).

[23] B. Germond (2022), "The Solidaristic Society of Maritime Nations", *Australian Naval Review*, 2022(1), pp.72-85; see also B. Germond Response to the Call for evidence: "Update to the UK's Integrated Review of Security, Defence, Development and Foreign Policy", House of Commons, Foreign Affairs Committee (accessed online), para 2.2.-2.3.

[24] MoD (2022), *op.cit.*, p.7.

[25] Council for Science and Technology (2021), "The UK as a science and technology superpower", Advice to the Prime Minister on strengthening the UK's position as a global science and technology superpower, 22.07.21 (accessed online).

6.1. Given its significant investments in Arctic science and security, **the UK should contribute to enabling research cooperation with trusted partners from the public and private sectors while protecting sensitive data and national security.**

6.2. With its prominent position within maritime nations and institutions, **the UK should take a leadership role along with like-minded states (e.g. starting with the 5 Eyes Alliance), scientists and civilian maritime stakeholders to devise innovative solutions to address the dual climate-geopolitical crisis in the Arctic**.

6.3. Specifically, **HM Government should capitalize on its whole-of-government approach to foster public-private partnerships, coordinate climate-security governance in the Arctic, and facilitate interventions that span across climate science, maritime security, and defence.**

7. Questions for HM Government

7.1. What are HM Government's plans for a balanced approach between responding to the climate crisis in the Arctic (which depends on science cooperation) and addressing Russia's rogue behaviour that prevents climate science collaboration?

7.2. What is HM Government's strategy to harness the UK's comparative advantage in terms of combined science and maritime leadership to foster Arctic science cooperation while protecting sensitive data and national interest?

March 2023