Sea-ice loss and the Arctic region

NATHALIE POIRIER AND MATHIEU LANDRIAU1

This event was held at the University of Ottawa and organized by the Centre for International Policy Studies (CIPS), the Henry M. Jackson School of International Studies of the University of Washington, the Institute for Science, Society and Policy of the University of Ottawa (ISSP), the North American and American and Arctic Defence (NAADSN) and the Observatoire de la politique et la sécurité de l’Arctique (OPSA).

This conference aimed to address and consider the impacts rapid changes in sea-ice loss have on Arctic reporting, military operations, as well as shipping and governance. Academic experts and practitioners came together to assess the challenges facing the Arctic region. The presentations were divided into two panels: the first panel was focused on the impact of sea-ice loss on military operations. The second panel tackled how sea-ice loss impacted reporting, shipping, and governance in the Arctic region.

Sea-ice loss and military operations

Lieutenant Commander Sylvain Bernier, Senior Staff Officer Future Operations Continental at Maritime Component Command, and Major Conrad Schubert, J9 Civil Military Cooperation at Joint Task Force North (JTFN) opened up the conference by addressing the strategic environment and the Canadian Armed Forces (CAF) framework which was established to ensure coordinated approach to working in the Arctic region and with Northern communities. Important challenges and considerations were highlighted underlining one key reality: climate change will affect everything that the Department of National Defence (DND) does in the North. The speakers stressed that there is a need to understand that global warming has practical and material impacts on military operations, particularly on the logistical front. Major Schubert began by stating that any CAF activity in the North is structured within four main criteria: being present year-round (such as seen with the Rangers), ensuring surveillance and control over this area, actively engaging with Northern peoples and communities, and working with a multiplicity of stakeholders, from civil society as well as from the federal and territorial governments.

1 Nathalie Poirier is a Master candidate at the School of Ethics, Social Justice and Public Service at Saint Paul University. Mathieu Landriault is a postdoctoral researcher at Trent University, a research associate at the Centre for International Policy Studies (University of Ottawa) and the director of the Observatoire de la politique et la sécurité de l’Arctique (OPSA).
LCdr Bernier addressed the specific implications of climate change on naval operations. The RCN is intrinsically reliant on the maritime environment and this environment has become more difficult to navigate in recent years. There are specific challenges for frigates to cover great distances within specific timeframes, as windows of opportunity for movement are limited in the North. Northern realities create specific challenges for vessels. For example, the Northwest Passage is not yet fully open and ice-free, significantly reducing the Navy’s ability to transit, resupply or refuel.

According to LCdr Bernier, few port facilities represent a concern as 75% of the coastline does not allow the ability to dock. In turn, this shortcoming contributes to a shortage of Northern fuelling stations. Hence, vessel autonomy in the North is difficult to achieve due to low fuel availability. Restricted food supply and waste maintenance constitute additional problems due to limited resources and access points. The operationalization of the Nanisivik refueling station on Baffin Island will represent a key infrastructure to address this concern. According to LCdr. Without ready resupply, the risk is that the RCN might deplete local hamlets of needed supplies. Access to health care and emergency response for CAF members are other operational concerns. Currently, the only hospital in the North is in Iqaluit – but it cannot accommodate surgeries or traumas - making emergency care impossible to reach quickly.

As the Canadian Armed Forces look ahead, challenges are multiplied by sea-ice loss in the Arctic region. There now is a greater number of vessels transiting Northern waters and many of these vessels, especially pleasure crafts, are not properly equipped to navigate in the Canadian Arctic. Further, we can expect a heightened risk of injuries for visitors as the number of transit increases, creating greater demand for search-and-rescue assets. Also, the Canadian Arctic is a vast area; it is important to ensure adequate naval assets in all areas of the North. According to LCdr Bernier, the Eastern Arctic currently has a greater proportion of naval assets; this will need to be corrected so that substantial naval assets may also be present in the Western Arctic. This will create a consistent approach and response to security for all regions of Canada. In addition, a greater collaboration with the Coast Guard will be key to better operations in the region. This closer collaboration would support a more efficient use of human resources and infrastructure as well as reduce duplication of resources between different agencies and departments.

Lastly, according to Major Schubert and LCdr Bernier, collaboration with other governments and local communities is key to a safe and sustainable North. The ability for CAF to deploy, move and work effectively in the Arctic is brought about by a changing northern environment and its resulting threats.

**Sea-ice loss and Arctic reporting, shipping and governance**

Eilis Quinn was the first speaker on the second panel. She is a journalist who manages the specialized online media, Eye on the Arctic. Eye in the Arctic collaborates with international partners to cover the Arctic region in its entirety. This collaboration is done through thematic reporting with numerous international partners: L’Aquilon, the Independent Barents Observer, Radio Sweden, Yle (Finland), and Alaska Public Media. Quinn felt that there is a global enthusiasm about the region, and that there is a need and desire for a pan Arctic media
perspective to share global Arctic challenges. This type of global reporting allows for a more sustained reporting which covers vast areas of the circumpolar Arctic, with each region bringing to the table their specific issues and viewpoints on shared themes. Furthermore, this thematic approach creates a valuable international outlook and allows for insights which might be lost if Arctic reporting was solely limited within each media’s national borders.

According to Quinn, two main issues emerge when covering climate change and sea-ice loss: logistics and media distrust. Logistically, increased expenses, tight timelines, and the unpredictability of climate create significant challenges. The media sector as a whole is going through a difficult financial period. Limited budget makes Arctic coverage more difficult as communities are remote and access becomes more expensive. The possibility of being stranded for long periods of time can also be added to the list of concerns and expense for reporters.

There is also tension and media distrust amongst Northerners, as some media reporting or civil society campaigning had devastating results on their communities. For example, anti-sealing campaigns conducted by animal rights groups, such as Greenpeace, led to the European Union ban on seal products, creating significant negative impacts on Northern communities. Such campaigns reduced the trust toward Southerners — including media and non-governmental organisations. It is key for reporters and the media to understand that this can create significant resistance to any form of collaboration with Southerners. This distrust makes reporting challenging, as questions of how the footage will be used, and who will be seeing it arise. According to Quinn, effective news reporting has to go through lengthy preparation, often done months in advance, in order to build trust. During this time, sustained communication between journalists and the communities is critical. Sharing intentions and expectations can support and build better relationships with Northern communities. It is important to be transparent and honest about the possible impacts that any story can have, as impacts on communities tend to live beyond the news report itself.

Quinn also highlighted that, in addition to the challenges already discussed, there are interesting possibilities unlocked by an online collaborative project such as Eye in the Arctic: long-lasting collaboration projects with international partners and the ability to create a unified narrative to better understand climate change impacts internationally.

The next panel speaker was Allison Cook, a postdoctoral researcher fellow at the University of Ottawa. The focus of her research is currently on the impacts of climate change on Arctic shipping. She stressed that we observed a rapid and recent increase in ship traffic. Traffic increased by 250% from 1990 to 2015, going from 40,000 kilometers in 1990 to close to 100,000 kilometers in 2015. The vast majority of vessels remain government vessels, ice breakers and general cargo, with a rapid increase of pleasure crafts (particularly since 2007). We need to evaluate if this trend will continue and assess the likely consequences it may bring. More refined observations can also be drawn from specific sub-regions. For example, increased ship traffic has been recorded in the Hudson Strait towards Baker Lake but reduced ship activity was noticed in certain regions such as Churchill (Manitoba).
In addition to measuring ship traffic, it is important to consider the nature of the traffic present in the Canadian Arctic. There are more fishing vessels around Baffin Island and an increase in pleasure crafts going through the Northwest Passage. These changes present potential risks as sea-ice is now both changing and unpredictable. Cook observed that there is a 10% reduction per decade in both sea-ice extent and thickness. Both multi-year and first-year sea-ice are decreasing, creating ice floes that makes navigation more difficult.

Another important challenge in sea-ice loss is a noticeable increase in multi-year ice movement. This ice is much denser and creates distinct challenges and hazards that must be given careful consideration. In other words, ice formations are fragmenting and consequently floating, creating uncertainty and instability in the navigational seascape. This heightened risk can be coupled with the general perception that ice is disappearing and hence vessels no longer require to be ice-strengthened. In Canadian Arctic waters, there was a total of 1227 different ships reported from 1990-2018: 21% were reported as possessing no ice-strengthening capability. In recent years, more vessels navigating these waters have been reported as not having any ice-strengthening capability.

Cook pointed out that choke points are especially risky for vessels. For example, Somerset Island and Bellot Strait have increased traffic, and the shoulder seasons are getting longer, increasing travel time and risks for operators. All in all, Cook's research demonstrates an alarming increase in vessel traffic, a decreased sea-ice readiness of smaller vessels and the inherent risk of accidents associated with these two trends.

Mathieu Landriault analyzed how sea-ice loss in the Arctic region had an impact on Arctic governance. He pointed out that initial fears surrounding sea-ice loss in the late 2000s hinted at more hostile interstate relations and sovereignty disputes as well as tensions as a result of increased accessibility. The 2010-2019 decade has not produced such an outcome for the Arctic. Instead, the decade was characterized by efforts to establish common norms and standards, to generate rules (through agreements between states) and to further the Arctic conversation. These developments were spurred by international pressure and calls, mostly from European and Asian non-Arctic states, to strengthen the legal framework governing the region.

However, he pointed out that the regional governance is still suffering from institutional shortcomings. Most institutions, forums or conferences have bring people together to discuss issues of common interests as their primary objective. Few Arctic institutions have assumed the role of generating regulations or rules (regulatory function) or of implementing programmes (programmatic role). The Arctic Council is the only purely Arctic institution with regulatory function (among other functions) while the Barents Euro-Arctic Cooperation carries a mostly programmatic agenda.

Promising opportunities are likely to arise in the near future to add to this regional governance landscape. Landriault argued that the rise in Arctic interest by Asian states, especially China, and the expected publication of the European Union Arctic strategy might bring Arctic states to take on a more proactive stance, convincing them to adopt additional rules and standards for the region.

Secondly, the signature of a 16-year moratorium on commercial fishing in the Central Arctic Ocean (CAO) offers an exceptional opportunity for cooperation between Arctic and non-Arctic states. Once, ratified by all 10 parties,
the moratorium means that interested states must carry scientific investigation to document the ecosystem and fish stocks present in the CAO. Such initiative could take the form of a regional institution to cooperatively manage data and ultimately resources in the CAO, akin to the Convention for the Conservation of Antarctic Marine Living Resources.

Finally, the most glaring regional governance gap is definitely located in the North American Arctic (NAA). The European Arctic already has cross-border cooperation, namely in the Barents Sea area. The NAA lacks such fundamental cooperative mechanisms between Northern jurisdiction (Alaska, Greenland, Canadian territories, Northern Québec and Newfoundland-and-Labrador) to tackle issues of cross-border cooperation. Landriault underscored that such development seems unavoidable as the need for joint decision-making and policy coordination will only grow as a result of sea-ice loss.

In conclusion, sea-ice loss in the Arctic region will create a more complex regional landscape. Global warming will not make the ice cover disappears. As highlighted by Conrad Schubert, Sylvain Bernier and Alison Cook, sea-ice loss will make military operations and shipping activities in the region both more complex and dangerous. In this context, the needs of Northerners must be taken into account in new multilateral arrangements and in media coverage. Past mistakes have increased mistrust: sustained cooperation and exchange however can built a foundation of trust and confidence.