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NORTH OF 60

TOWARD A RENEWED CANADIAN ARCTIC AGENDA

SPECIAL REPORT

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Toward a Renewed Canadian Arctic Agenda

Edited by John Higginbotham and Jennifer Spence

CIGI

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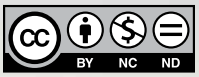

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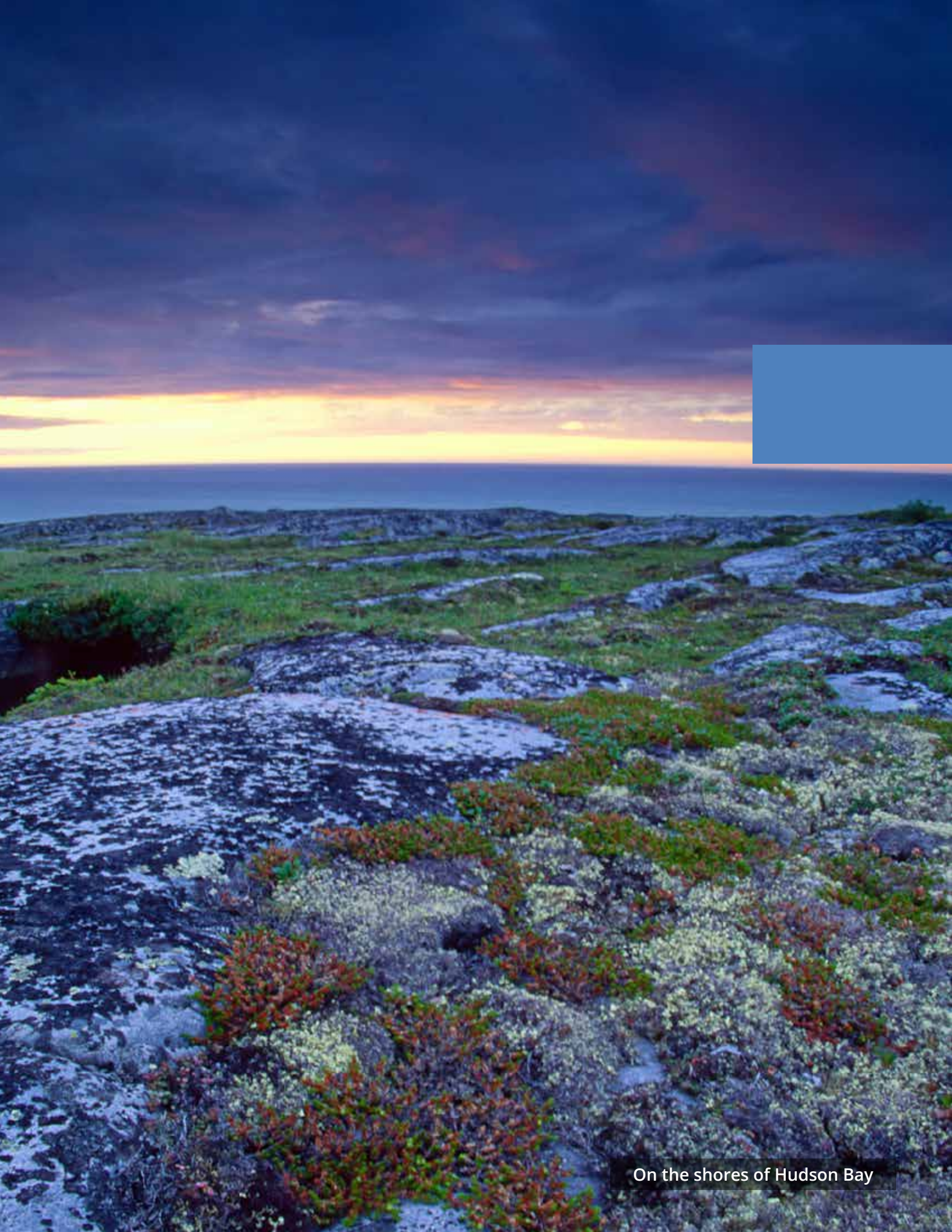

On the shores of Hudson Bay

Acronyms and Initialisms

ABM	anti-ballistic missile
BSP	Beaufort Sea Partnership
1 CAD	1 Canadian Air Division
CAF	Canadian Armed Forces
CIGI	Centre for International Governance Innovation
CJOC	Canadian Joint Operations Command
COP21	twenty-first Conference of Parties
ICC	Inuit Circumpolar Council Canada
IRC	Inuvialuit Regional Corporation
ITK	Inuit Tapiriit Kanatami
LNG	liquefied natural gas
LOMA	Large Ocean Management Area
NATO	North Atlantic Treaty Organization
NGOs	non-governmental organizations
NORAD	North American Aerospace Defense Command
NSR	Northern Sea Route (Russia)
NWP	Northwest Passage
NWS	North Warning System
NWT	Northwest Territories
PLAN	People's Liberation Army Navy
PNWER	Pacific NorthWest Economic Region
POLAR	Polar Knowledge Canada
POPs	persistent organic pollutants
PPs	Permanent Participants
PQ_	Parti Québécois
SAR	search and rescue
SOI	Students on Ice
SSN	nuclear-powered submarines (NATO designation)
TCWR	Tibbett to Contwoyto Winter Road
UNCLOS	United Nations Convention on the Law of the Sea
USN	United States Navy
USNORTHCOM	United States Northern Command

Near Great Slave Lake, Northwest Territories

Introduction

John Higginbotham and Jennifer Spence

Canada's vocation as an Arctic nation has long been at the core of the Canadian identity. Canadians embrace their Northernness with pride. However, those with a deep experience in Canada's North — whether it be social, scientific, economic, political or environmental — will be quick to point out that our sense of Canada's Arctic identity has not always translated into serious attention to the unique issues facing the region or the needs of the people that call Canada's North their home.

During the late summer of 2015, we saw a window of opportunity opening for a serious discussion of a renewed Arctic strategy for Canada. For several years, there had been a growing interest in the economic, social and diplomatic implications of the melting of the Arctic Ocean. Added to this, Canada had just completed its term as chair of the Arctic Council, climate change in the Arctic was garnering widespread attention, and the return of geostrategic rivalries between Russia and the West was also giving the region greater prominence. Although, to the surprise and consternation of some, the Arctic did not feature prominently as an election issue, the arrival of a new government in Ottawa has brought about a greater appetite for a serious policy discussion about Canada's Arctic policies.

As former public servants now engaged with academia, we believe that we are positioned to facilitate a much needed discussion between policy shapers from the federal public service and some of Canada's leading Arctic experts. We therefore organized a forum where government and those outside of government could collectively and informally discuss the issues facing the North and the implications for the way the government, as a whole, approaches these complex issues.

The CIGI round table, Revitalizing Canada's Arctic Policy, took place on November 27, 2015, at Carleton University — shortly after Prime Minister Justin Trudeau's new Liberal Government took power. The conference was supported by Indigenous and Northern Affairs Canada and Global Affairs Canada. A dozen of Canada's leading Arctic experts attended the round table and were joined by senior officials from a number of Canadian federal departments. A remarkably open and healthy dialogue took place. Several federal officials commented that the gathering was especially timely and useful, given the work being launched internally in various departments on specific dimensions of federal Arctic policy. The atmosphere reflected the new government's instinct for outreach and consultation.

Although the government's agenda is already a crowded one, we believe that it is vital that the government make the Arctic a real national priority because of the region's growing importance to the country's economic, social and environmental future. Aspirational goals will have to be integrated, operationalized and funded in proportion to the unique and massive infrastructure, environmental, and social needs of the Canadian North and its people.

Experts participating in the round table were invited to prepare papers after the workshop that captured the meeting's core themes. Additionally, Natan Obed, president of the Inuit Tapiriit Kanatami, and Duane Smith, former president of Inuit Circumpolar Council Canada, were interviewed to offer their own insights on the themes of the round table. Those interviews are also published here.

The following short essays bring together thoughtful commentary on a diverse array of policy issues. At the domestic level, this collection explores themes such as the role of subnation governments and Northerners in shaping policies in the region, the need for the coordination of marine and surface transportation corridors, the impact of permafrost melt on land infrastructure, and the importance of a whole-of-government approach to support safety and security in the region. Collectively, these papers urge us to consider the unique and complex social, environmental, economic and political circumstances that Northerners face.

The foreign policy issues discussed represent an equally diverse collection of actors and issues. From the role of institutions, such as the Arctic Council, North Atlantic Treaty Organization, North American Aerospace Defense Command and Pacific NorthWest Economic Region, to the place of Quebec's Plan Nord and the possibilities for managing the Beaufort Sea and the Northwest Passage, our experts have challenged us to recognize the growing regional and global importance of Canada's Arctic. This collection, of course, cannot provide a comprehensive analysis of all the policy issues facing the region; rather, we seek to capture the diversity of issues and provide thoughtful substance to help set us on the path toward a renewed Canadian Arctic agenda.

We hope that the insights of this collection of essays will provide a solid basis for further discussion in the North and across Canada for those ready to engage in shaping Canada's future Arctic agenda.

Lastly, we would like to express our sincere thanks to Ms. Marina Grosu and to Indigenous and Northern Affairs Canada, Global Affairs Canada, the Norman Paterson School of International Affairs at Carleton University, the program and publication staff at the Centre for International Governance Innovation (CIGI) and, especially, our authors for their invaluable support in planning, implementing and publishing the fruits of the discussion at the CIGI round table on Revitalizing Canada's Arctic Policy.

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Jennifer Spence is a Ph.D. candidate, instructor and research associate at Carleton University's School of Public Policy and Administration. Jennifer is a proud recipient of the 2014 Martin Bergmann Memorial Award for Research in the Arctic. She comes to academia after 18 years of experience with the Canadian federal public service. Her diverse experience with public service includes aboriginal policy and negotiation, fisheries resource management, human resource policy and capacity development and federal government procurement.

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The three territory flags alongside the Canadian flag

The North in New Times

Revising Federal Priorities

Frances Abele

Introduction

The recent change of government, the economic hiatus created by falling global commodity prices, the urgency to respond to climate change, and the rising of a new generation of northern leaders and engaged citizens all combine to create an ideal environment for revising federal northern development policy priorities. Revision is not only possible, but essential. The long-standing analyses and assumptions that underlie previous versions of the federal role have proved inadequate; these different versions are now showing themselves to be even more so as the country faces the looming challenges posed by climate change and attendant massive changes in the global organization of production. It is time to abandon worn-out practices, and to begin developing a new approach to these challenges that will take advantage of the North's existing and emerging strengths and assets.

This commentary sketches a starting point for a new federal approach and suggests:

- replacement of a failed economic development policy paradigm, with one that is appropriate for these new times, which will be defined by climate change and Canada's response to it;
- durable linkage of social and economic innovation; and
- strengthening of intergovernmental institutions and northern research capacity.

While these suggestions are addressed to the federal government, I do not mean to encourage unilateral federal initiatives in the North. All northern governments — Aboriginal, territorial, local — and their citizens, must be engaged in the rethinking that is proposed here.

Northern Diversity

The three territories — Northwest Territories (NWT), Yukon and Nunavut (and the northern parts of many provinces)[1] — share important qualities: a cold climate, vulnerability to global warming and sparse populations in which Aboriginal citizens form the majority of the population living in the many smaller centres and non-Aboriginal residents are concentrated in the larger centres. Otherwise the differences among northern regions and jurisdictions are marked. Demography exposes the first contrasts: Inuit comprise about 85 percent of the population of Nunavut; Dene, Métis and Inuvialuit together make up about 50 percent of the population in the NWT; and First Nation citizens make up less than 25 percent of the population in Yukon. Nunavut's non-Inuit population is highly transient, and there is a tiny proportion of second-generation non-Inuit residents. The NWT and Yukon have their transients, but are also home to well-established multi-generational non-Aboriginal populations. Infrastructure varies, with generally better provision in the western territorial north than the east. For example, in Yukon, all but one community are accessible by road. More than half of the communities in NWT are only accessible by air, water or ice road, while in Nunavut, no all-season roads connect communities to each other, or to the rest of Canada. While Internet services in most parts of the territories do not meet the national standard, coverage in Yukon is better than what exists in the other two territories.[2] Similarly, though none of the territories can boast a university, Yukon College is close to attaining this status.

As has long been recognized, these differences argue for a federal approach to northern policy and programs, one that has been developed collaboratively with northern governments — both public and those of Aboriginal communities — and that is sensitive to regional variations and local needs. There can be no single northern policy, only a broad federal policy direction that takes regional variations and preferences into account.

Policy Background

The lineaments of federal northern policy were established long ago, an outgrowth of the pattern of Canadian development established in the nineteenth century. It was built on the separation of Aboriginal peoples from their lands, the protection of a central Canadian manufacturing base, and the development of agriculture and resource-exporting hinterlands in the west and north.[3] For more than one hundred years, and in fits and starts, federal northern policy has followed this model. The aim has been to develop northern

1 For constitutional reasons, federal policy, with respect to the northern portions of provinces, requires a separate discussion. The conditions on many northern reserves make this discussion equally critical, but different.

2 See Canadian Radio-television and Telecommunications Commission, Broadband Report November 2011, www.crtc.gc.ca/eng/publications/reports/broadband/bbreport1111.htm.

3 For elaboration, see Abele (2009).

mineral resources for export, and create jobs for the displaced and dispossessed Aboriginal people who were expected to lose their purchase on their land, and thus their long-standing means of earning a living. The twentieth century saw strenuous efforts to regulate hunting, fishing and trapping, and finally, beginning in the 1950s, a range of social policies — social housing, health care, education — that brought benefits as well as a loss of local control.

Beginning in the 1960s, Aboriginal resistance to externally generated social interventions and threats to their relationship with the land led to important institutional changes. These included the negotiation of comprehensive land claim agreements, the formation of a variety of modern governments, as well as a resource development regulatory system that institutionalized some local control, though ultimately the decision-making power over major resource development remains in Ottawa.

Twenty-first Century Economic Development Policy

For historic reasons and due to structural factors in the Canadian political economy, non-renewable resource exploitation still dominates federal northern economic development planning (Government of Canada 2016). This is so despite the evidence of many years that whatever modest contributions northern non-renewable resource development may make to public revenue and regional employment, it will not kick-start the motor of northern economic development, nor will it establish the conditions necessary for resilient and balanced northern economies. Indeed, if such were to be the result, one would expect that the engine would be running by now, 70 years after heavy public subsidy of non-renewable resource development began. It is not. While the mineral sector can provide some benefits, its inherent instability, limited contribution to northern employment, and environmental and social costs must be compensated.[4]

In recognition of this, northern territorial and Aboriginal governments have long provided some support for hunting, fishing and gathering, while aiming to promote economic diversification into such sectors as the fishery, forestry, tourism, art and crafts.[5] They have also, of course, continued to hope that non-renewable resource development will bring public prosperity.

While these goals remain, they are insufficient. Both the North and the rest of Canada are in new times. An economic diversification strategy suitable for the near and medium-term future must take into account the likely impacts of climate change. These are already felt in the North, as changes in weather patterns affect harvesting and melting permafrost damages roads and buildings, including those necessary for resource exploitation. The impacts will only grow more severe. In order to adapt to these changes, there is an urgent need for sophisticated technological and social innovation based upon social, scientific and engineering research, and knowledge sharing across jurisdictions. Priorities will have to change from facilitating megaprojects for

4 For a valuable and frank assessment of the development of the NWT' economy during a boom period in resource development, see NWT (n.d., 11–15). To the best of my knowledge, there is no published research that sets resource revenues against the full costs of resource development in the federal North, though a handful of community studies are suggestive. For example, see Keeling and Sandlos (2012). It is also important to consider the distribution of revenues from resource development — a matter for a longer paper.

5 For example, see the West Kitikmeot/Slave Study, www.enr.gov.nt.ca/sites/default/files/reports/wkssfinal.pdft and the economic development strategies published by each territorial government.

hydrocarbon and mineral export to massive development of new energy-efficient technologies that are adapted to the changing northern conditions. This is the only way to ensure that the North remains habitable and capable of supporting healthy community life.

Canadian and international scientists, along with members of northern communities, have been conducting the foundational research necessary for the transition ahead. Applying this research will require a certain boldness if it is to be synchronized with necessary, and probably inevitable, changes in the shape of the Canadian economy. It will have to come away from the nearly exclusive emphasis on raw resource exports and move toward technological leadership in what some have called "the second economy" — a software-driven digital transformation of many aspects of the economy and social life.[6] All of these measures create profound needs for vastly improved infrastructure and expanded analytical capacity to generate realistic economic alternatives.

Social Innovation

In certain areas, despite low public investment in infrastructure, residents of the Canadian North have demonstrated enormous capacity for social and economic innovation, creating community economies that turn external pressures into a source of stability and diversification. One example of this is the northern community mixed economy — a source of stability and well-being for several decades, in which households blend income from the land with case infusions from wages and transfers.[7] Northerners have also pioneered in the use of digital technology to overcome distances between communities, while building upon the democratic and discursive traditions of Aboriginal societies.[8] Such initiatives, and others waiting to be documented, can form the basis in the North for an adequate response to the impending climate-driven pressures. This in turn requires sustained public attention and steady federal financial support, as well as goal-driven, consistent and knowledge-based public policy. To turn abstract goals into actions, it is necessary to think about implementation and state capacity to advance and build upon the strengths in northern society that will be most useful for the changes to come.

State Capacity

International comparative studies suggest that regional development depends upon a judicious mixture of public policy and corporate initiative, for example in encouraging "offshoot" regional development that is based on existing economic foundations.[9] While territorial governments and occasionally federal programs in Canada appear to recognize this, the overall public policy effort has been scattershot and uncoordinated. To some extent this is an inevitable consequence of Canada's divided jurisdictions — as would be

6 For a more in-depth discussion of the second economy and Canadian development, see Wolfe (2016).

7 For a discussion of the mixed economy, see Abele (2009).

8 For example, see Isuma's Digital Indigenous Democracy project, www.isuma.tv/did.

9 Frank Neffke, Martin Henning and Ron Boschma (2011) analyze some important European examples. Another example is Norway's Arctic policy, which prioritizes international cooperation, a knowledge-based business sector, broad-based knowledge development, more reliable infrastructure, and better preparedness and environmental protection, www.regjeringen.no/en/dokumenter/report_summary/id2076191/.

the case in any federal country — but the costs of fragmentation are high. It is difficult for the northern jurisdictions either to learn from each other's experiences or to pool their resources for greater impact. At the same time, the largest potential partner, the federal government, has at once too much power and too little. Federal fiscal capacity and federal control over non-renewable resource development decisions means that the federal order strides across the North with very big boots. Yet overall direction and federal capacity to be a force for a holistic, integrated development is weak because the federal order lacks political legitimacy and, crucially, an organic, democratic connection to northern peoples and institutions.

Some basis for the kind of political innovation needed to move past the too little/too much paradox in federal northern policy may be found in past practice. Canada appears to be returning to older traditions of intergovernmental cooperation, as signalled by the new federal government's early convening of high-level meetings with premiers and Aboriginal government leaders. An extension of this principle to create new institutions for northern development policy making is needed. Northern premiers already meet regularly to develop common positions in priority areas. This practice could be developed and extended to include Aboriginal governments and an institutionalized link to federal policy processes. It is worth considering instituting the practice of northern summits, to involve Aboriginal, as well as federal and territorial leaders, supported by prior and parallel meetings of senior officials. It might make sense to schedule annual summits that would work their way through a series of priority issues, to ensure that each one receives due focus and attention — and can be discussed in light of advance policy research.

This work should draw upon a second Canadian tradition long dishonoured through decades of false economies and cutbacks. This tradition is the creation of a substantial public capacity for research and analysis, focused on the looming challenges of northern development planning.

Discussions have begun toward establishing a northern research institute, engaging Polar Knowledge Canada (POLAR)[10] — the federal agency that houses a range of research support and coordination responsibilities — and the northern research institutes and Canadian universities. There is an additional need, though, for an independent "transmission"-style think tank, with a remit to publish challenging and far-sighted evidence-based proposals without regard for their alignment with current government policy. The new institution would require substantial independence from the federal cabinet and other governments, a very strong northern base, and a capacity to contribute equally in all areas of intergovernmental policy development. In short, it is necessary to develop a purpose-built institution that is impressively independent, but capable of providing timely and pertinent policy analysis. Models exist in the heyday of the National Research Council and

10 POLAR's mandate is to advance knowledge of the Canadian Arctic in order to improve economic opportunities, environmental stewardship and the quality of life of its residents and all other Canadians; promote the development and dissemination of knowledge of the other circumpolar regions, strengthen Canada's leadership on Arctic issues and establish a hub for scientific research in the Canadian Arctic. POLAR currently administers student granting programs and a major northern award for scholars, as well as the new Canadian High Arctic Research Station in Cambridge Bay. See more at www.canada.ca/en/polar-knowledge.html.

Economic Council of Canada, or the National Round Table on the Environment and the Economy.[11] The latter organization, part of Canada's response to the 1987 UN "sustainable development" report *Our Common Future* and closed by the previous federal government, provided research and analysis to governments and the public for 25 years. A northern economic and environmental round table, with a small permanent staff, a board of citizens to provide direction, and the fiscal capacity to both commission research and disseminate it, could begin to fill the knowledge gap faced by all northern governments. It would share some characteristics with previously existing national institutions (a citizen board, a research and convening capacity) and some of the myriad distinctive northern research and analysis models, such as the West Kitikmeot/Slave Study or the 1980s Western and Nunavut Constitutional Forums. Most importantly, such a body could begin to consider how to develop a culture of public ambition for coordinated reform, and the economic and social linking necessary to build the new northern economies. It would complement, not replace, existing independent research capacity in Canadian universities, and the work of the northern research institutes as they develop.

Conclusion

It is time for all northern jurisdictions — Aboriginal organizations and territorial governments — to begin the important work of developing an innovative, far-sighted program for northern economic change. For constitutional and fiscal reasons, they must do this in partnership with the federal government. These partners must take into account the North's rapidly changing environmental circumstances, and impending structural changes in the world and the Canadian economies. In order to do this, a broad process of analysis and reflection is necessary, engaging northern citizens and the best research resources available, including the best insights of the global experience with regional economic development. Such public deliberation requires sustained political commitment, but also the judicious development of new institutions for evidence-based intergovernmental decision making, engaging the northern Aboriginal and public governments that have a realistic understanding of northern conditions with the federal capacity to move broad processes of adaptation forward. Just as the movements of the last century created the new institutions of a more democratic public order in northern Canada, it is important now to devise innovative institutions to address the challenging new times ahead.

Frances Abele is a professor in the School of Public Policy and Administration (SPPA) at Carleton University, and academic director of the Carleton Centre for Community Innovation. She has worked with the Centre for First Nations Governance as well as other think tanks and research institutes, and was deputy director of research for the Royal Commission on Aboriginal Peoples. At SPPA, Abele is leading the development of new graduate programs in Indigenous Policy and Administration.

11 The Northern Science Research Group of the 1960s northern affairs department is no longer appropriate in institutional form, but its example of independent and critical applied social science shows what can be achieved in a federal department with adequate policy authority and funding.

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2

Melting ice in Nunavut

Restorying Climate, Northern Peoples and Future Arctic Strategies

Heather E. McGregor

> Even when people are focusing on the POPs[1] in our water and marine animals or on the global climate change that is destroying our homeland (not to mention the earth's air conditioner), many still fail to see that there are human beings whose lives and cultures are on the brink of being destroyed. When the vast majority of people think of the Arctic, they still think of polar bears, not people.
>
> (Watt-Cloutier 2015, 307)

My Perspective as a Northerner

I was born and raised in the Northwest Territories and Nunavut. While I do not presume to speak for others, I bring my experience and relationships to my research and work, remaining committed to supporting Arctic communities. My life experience, my research into Arctic perspectives, and my many years of post-secondary study, however, did not bring me face to face with climate crisis as powerfully as a trip through the Greenlandic and Canadian High Arctic and Northwest Passage in the summer of 2015. This was my wake-up moment. Through the cruise experience I *felt* the passage of time, the unparalleled rate of environmental change and the exquisite beauty and deep anguish of melting, all around.

Then I heard how conversations about climate crisis developed among the passengers on the ship — a microcosm community of Southerners and Northerners, Arctic

1 Persistent organic pollutants.

experts and those learning about it for the first time. From these conversations, I came to think we could do better than to become mired in the easy binaries between economy and environment, development and conservation, technology and culture, South and North. But, first we must listen to each other better.

I am now bringing my previous thinking in the areas of education, history, decolonizing and Arctic perspectives to bear on the climate crisis in my scholarship. I recognize that many Northerners have been deeply involved in conversations and advocacy like this for much longer than me. For example, the acute impacts of climate change on northern peoples, and the rationale for framing it as an issue of human rights, are well documented in Sheila Watt-Cloutier's book, *The Right to Be Cold*. We should turn, or return, to calls such as hers.

What follows is a brief outline of three pursuits I think we must take up in establishing and enacting future Arctic strategies, through restorying relationships among peoples and environments.

Overcome the Desire to Look Away from What Climate Crisis Means for People

On a Northwest Passage cruise in 2015, scientist Jim Halfpenny explained, "Once we lose the multi-year ice, that's a major tipping point. And I think we're probably going to see an ice-free North Pole in five, maybe 15 years" (Scranton 2015a, 17). He went on to say, "To be honest, the North is doomed. The Inuit way of life is gone. They can't go out on the ice to hunt, it won't be long before it's only annual ice, and I suspect there may be a time when there's no ice. There just ain't a rosy picture there" (ibid., 21).

For those who know the Arctic, such words are very hard to hear, harder to absorb, hardest to live with. Despite the efforts of northern leaders like Jose Kusugak, Watt-Cloutier and Mary Simon over several decades, one of the biggest problems we continue to face is the desire to look away from crisis (Klein 2015). It is too complicated and too emotional. It is, as author Roy Scranton (2015b, 53) puts it, a "collective action problem of the highest order…[a] wicked problem…[that] doesn't offer any clear solutions, only better and worse responses."

Human communities are reluctant to feel, and deal with, the disonance and disappointment of what is happening. We avoid the grief associated with the loss of the stories we've invested deeply in — such as that our children would know the Earth the way we have known it. I do not say this to suggest that mitigation efforts are pointless. Rather, to suggest that looking away is directly connected to our tendency toward inaction, our poor record of compromising now for the benefit of future generations. Even following the twenty-first Conference of Parties (COP21) in Paris and Canada's renewed commitment to addressing climate change, many Canadians remain desensitized to this complex situation. And so the problem is getting worse.

Those who have been paying attention know that the climate crisis has affected, and can be expected to continue affecting, indigenous[2] Northerners in greater proportions and intensities than many other Canadians. A combination of environmental factors intensifies changes in the Arctic ecosystem, even though human activities producing these changes originate elsewhere in the world.

At the same time, it is not only the fear of climate change that has us looking away. Another layer of this wicked problem is that Arctic peoples are already saddled with so many complicated challenges. Food insecurity, insufficient housing, and gaps in wellness indicators and education continue. How can we tackle climate change when people do not have access to basic human services? These are long-term, complicated issues for which it is exceedingly difficult to rouse public sentiment, let alone commitments to change. These challenges are hard to understand, but that does not warrant letting them stretch on and on, as we have allowed in the past.

Acknowledge and Address the Divide Between Northern and Southern Perspectives

At a recent speaker's panel at the National Gallery of Canada on the topic of "Being Cold," Watt-Cloutier was asked by a fellow panellist, "How could the Arctic not have enough water when I perceive it to be all water and ice?" Evidently the question came from someone unfamiliar with current events in relation to northern water quality (i.e., lengthy boil water advisories), ecosystems and hydrology, and climate change science. But to me, it was the disposition in the question that is deeply concerning. It illustrates the incredulity that Northerners regularly face, and the patience that is demanded of them in response.

This divide between northern and southern perspectives must be better addressed going forward through education and dialogue. Students on Ice (SOI) is one place where this is happening. It is a non-profit foundation providing youth with experiences of Arctic travel, interdisciplinary education on the Polar regions and leadership development. SOI strives for 30 percent or more Inuit youth participation through scholarships, and similarly provides for the involvement of Inuit elders, leaders and experts as onboard staff. Northern participants meet and share with participants from across the globe.

Geoff Green, founder of SOI, is often asked about the polar expedition program and their efforts to support Inuit youth participation, "Why take an Inuk to the Arctic on a ship?" This question again illustrates the disconnection, though hardly the most harmful one, that sometimes occurs between southern and northern perspectives. SOI recognizes that there are relatively few accessible opportunities for Inuit youth to see other parts of the Arctic region, participate in leadership development opportunities, discuss what is happening in their home communities with others and build a network of young northern leaders. Northerners would benefit from more programs that provide meaningful learning experiences and dialogue at the distinct nexus of Arctic issues, climate change and human development.

2 The author views "indigenous" as an identity marker that warrants capitalization and regularly capitalizes it in her work, whereas CIGI's style guide does not allow for capitalization of the term.

Practise Decolonizing Thinking in Developing New Stories about the Arctic Future

> The old days of Inuit being passive observers to fundamental decisions being made about our homeland are dead and buried.
>
> (Simon 2011, 890)

However Canadians in the Arctic and outside it go about addressing the climate crisis — or overlooking it — we do so from within pre-existing human and environmental histories, and the present conditions formed by those histories. We cannot simply press the reset button on colonization and establish new relationships overnight. People remember how they related to the land in the past. People remember what was taken from them, and when they were treated as pawns in a game for which they did not know the rules. Inuit resiliency and adaptability are renowned, and should not be underestimated, but collective historical trauma comes from the past into the present (Crawford 2014).

In the late twentieth century, strides were made in Canada and across the circumpolar region to establish land claims agreements, recognize indigenous self-determination and devolve formal decision making to Northerners (Simon 2011). Notwithstanding these significant accomplishments, legacies of colonization, racism and marginalization persist while implementation of decolonization and devolution are often incremental. Watt-Cloutier (2015) says, "I firmly believe that if these systems — whether school systems, judicial systems or health systems — do not contextualize our community's problems, helping individuals, families and communities to understand the historical context from which the problems arise and addressing their roots in a small way, things simply won't get better" (ibid., 318).

In the early twenty-first century, the circumpolar region is also changing in unprecedented ways, such as through mineral resource development projects, as well as transportation and tourism industries. Economic stimulus is badly needed in the Arctic. Northerners understandably desire access to jobs and resources comparable to what others have had access to for many decades. This is partly why the Inuit Circumpolar Council and governments of Greenland and Nunavut emphasized at COP21 that climate change commitments must account for common, but differentiated, responsibility.

Government policies, priorities and responses — especially those accompanied by the rhetoric of urgency — risk imposing decisions on Northerners without adequate consultation, thereby perpetuating colonizing modes of relationship. As geographer Emilie Cameron (2012, 112) notes, we must be vigilant to "the inevitable risks of well-meaning, benevolent intervention into Inuit lives and livelihoods." She warns that even researchers inquiring into the human dimensions of climate change adaptation — usually developed through participatory action projects with northern communities — are overlooking the persistently colonial nature of relations between indigenous peoples and governments (ibid., 110).

Meeting minimum consultation expectations is not the same as working together in ways that centre around decolonizing thinking. Policy makers and northern community members must together determine what policy vehicles can address indigenous self-determination in ecosystem care, economic development and human health at the same time. They must, together, struggle with the question: how can existing socioeconomic stratification, and other Northern crises, be mitigated within actions on climate change, rather than being sidelined or sacrificed by its overwhelming implications?

Striving for a wholesale break from our shared histories is unlikely to be as effective as striving to restory our relationships in ways that repeatedly recognize how damaging some government intervention was in the past, and how crucial reconciliation, and indigenous self-determination is to the future.

Conclusion

My recommendations for creating and implementing effective, holistic and ethical Canadian Arctic strategies emphasize enhancing awareness of, and dialogue around, the connections among history, climate, education and decolonization.

Our difficulty making sense of the climate crisis, and the unknowable future it brings, is partly rooted in the gap between the stories we have told ourselves about what to expect for human life in the twenty-first century, and how environmental changes are eroding those stories and expectations. As Canadians and Arctic residents face unpredictability and change, we seek continuity — or at least connection — with our histories, with the stories that shape who we understand ourselves to be. People need to find themselves in the stories of climate change, in the stories of communities living within a crisis, and the stories that guide our actions to mediate it.

It is crucial that such stories and plans are not experienced by northern residents as being imposed "from the outside," by outsiders. Therefore, more support is warranted for Northerners, especially indigenous Northerners, to become leaders, facilitators and educators about climate crisis, adaptations and collaborations in strategic policy thinking regarding the Arctic.

Investment in public education for Northerners is crucial to creating meaningful new stories that account for what life used to be like in the Arctic, and what it may be like going forward. These complex problems within strategic Arctic governance require skilled and sensitive thinkers, who can participate in and lead meaningful public education; who can facilitate frank, ongoing dialogue about how climate change affects people; who can bridge the gap between northern and southern perspectives; and, who can develop strategies that account for the history of colonizing relations between outsiders and Arctic peoples, moving toward decolonizing thinking in policy development and climate crisis management.

Alongside initiatives that facilitate dialogue, these goals may be pursued through enhancing human resource, financial and logistical support for:

- post-secondary education programs that focus on the Arctic, respond to indigenous educational imperatives and are accessible to Northerners;
- existing and new networks of scholars and community leaders who conduct social science/humanities research and policy development, alongside climate change researchers, especially ensuring adequate funding for participation by Northerners;
- nuanced training and orientation for public servants, professionals and consultants who come from outside the Arctic; and
- leadership development and ongoing mentorship for indigenous Northerners to become leaders in the public service, business and non-governmental sectors.

In order to stop looking away, communities of Northerners, researchers, policy makers and storytellers from different regions, departments and disciplines need more opportunities to think through complex questions together.

Finally, the idea of restorying evokes a crucial facet of human nature — that we rely on narratives to underpin our processes of assigning meaning, making choices, setting priorities and following through with actions. This is what we must do differently, better and together, as climate change surrounds us.

Heather E. McGregor holds a Social Sciences and Humanities Research Council of Canada post-doctoral fellowship in the Faculty of Education at the University of Ottawa. Her research into the history of curriculum, educational policy and schools led to the 2010 publication of *Inuit Education and Schools in the Eastern Arctic* (University of British Columbia Press, 2010). In 2015, she completed her Ph.D. at the University of British Columbia. Her doctoral research focused on educational administration, the role of elders in schools, northern curriculum development and decolonizing change in Nunavut between 2000 and 2013. Her work was awarded by the Canadian Association of Foundations of Education as an "outstanding dissertation."

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An inukshuk uphill from Igloolik, Nunavut

Defining Respect Within a New Inuit-to-Crown Relationship

Heather E. McGregor

Natan Obed

Natan Obed is the president of Inuit Tapiriit Kanatami, the national voice of Canada's 60,000 Inuit. He is originally from Nain, the northernmost community in Labrador's Nunatsiavut region, and now lives in Ottawa. For 10 years he lived in Iqaluit, Nunavut, and worked as the director of Social and Cultural Development for Nunavut Tunngavik Inc., the organization that represents the rights of Nunavut Inuit. He has devoted his career to working with Inuit representational organizations to improve the well-being of Inuit in Canada.

An Interview with Natan Obed, President, Inuit Tapiriit Kanatami

Natan Obed comes from Nain, the northernmost community in Labrador's Nunatsiavut region. As the recently elected president of the Inuit Tapiriit Kanatami (ITK), he leads an organization established in 1971 to be the national voice of Canada's Inuit. In an interview with Heather E. McGregor, Natan shares his thoughts and perspective on the policies and programs that are important to the 60,000 Inuit who call Canada's North home.

Heather: Most people living in southern Canada have few opportunities to spend time in Inuit communities. What story do you tell, to try to help people understand what it's like to face social issues in Inuit communities in the North?

Natan: For people who have never been to the Arctic and don't know much about Inuit, I always start with differentiating Inuit from First Nations and Métis. We are all indigenous[1] peoples and we respect one another, but we don't have shared governance structure or shared identity. Inuit are bound together by a common culture, society and language. That's why Inuit Tapiriit Kanatami (ITK) exists, instead of Inuit working with the Assembly of First Nations. Inuit are recognized separately in the 1982 Constitution. We don't fall under

1 Heather E. McGregor views "indigenous" as an identity marker that warrants capitalization and regularly capitalizes it in her work, whereas CIGI's style guide does not allow for capitalization of the term.

historic treaties. We negotiated with Canada in the modern land claims process, resulting in comprehensive agreements. We have four different regions across the Canadian Arctic, and we call that settlement area "Inuit Nunangat."

All the discussions that happen about Arctic waters, lands, and about Arctic peoples have to come through Inuit. We have negotiated and created a political space, and we will benefit from economic development activities. We are also part of public government processes. We don't have on-reserve funding. We expect the same level of education, health care and infrastructure as all Canadians are afforded. We are still fighting for Inuit specificity within the services and partnerships that affect us.

Heather: ITK released a new strategic plan in March 2016. How would you summarize that new plan, and how is it different from what ITK was doing before your term as president?

Natan: Our new strategic plan and associated action plan sets out a three-year mandate for me to implement. Part of the plan was setting the foundations for why ITK matters in the context of 2016. In this new relationship with the Liberal government, who have been open to working with us as an indigenous people, I think clarifying who we are and who we represent is one of the foundational pieces that will allow for success.

We have seven key objectives that we want to work on [suicide prevention, affordable housing, reconciliation, self-determination in education, environment, research, supporting families and communities]. In the past, we've had similar, or the very same, objectives in a broad sense. Now we have specific scopes of work at the national level in each one of these areas. A lot of these issues are generational — they're not going to be solved over the course of one or two years. But, I understand the importance of articulating clear and concise priorities, giving timelines to implement them, evaluating and following up, and then showing that we actually did what we said we were going to do. At the end of the mandate there will be a very clear understanding of whether or not I've led the organization in the direction that it needed to go, to achieve the objectives that we set out.

Heather: How do you see your mandate intersecting, from what you can tell so far, with what you expect from the Trudeau government's policy related to the Arctic?

Natan: The Liberal government has talked about a renewed nation-to-nation relationship. I've requested that the Liberals use the term, for Inuit, a renewed "Inuit-to-crown" relationship, because our nation-to-nation status is secondary to our land claim implementation status. There is this new, very wide, space of shared priorities and responsibilities. That's the space that we can occupy together.

It's great that we're starting in a place where the federal government has talked about the importance of murdered and missing indigenous women and girls; the Truth and Reconciliation Commission's calls to action; implementation of the UN Declaration of the Rights of Indigenous Peoples; the idea that Canadian Inuit are central to Canada's sovereignty claims in the Arctic; that climate change is an issue that Inuit have a right to participate in — in discussions around solutions, mitigation or adaptation efforts beyond our borders; and that Canadian Inuit have a Canadian perspective to give, not just an Inuit perspective to give.

There are other things that we've been working on for years, such as normalizing the relationship across the federal government departments. We have very different ways that we interact with different departments — on the staff level, and on the program and policy level. It doesn't make any sense that indigenous people have to find their way within each federal department, and that it is up to each federal department to ultimately define how it will or will not respectfully engage with Inuit. I'm optimistic at this point that we can do some good work.

Heather: What more would you like to see from the Trudeau government in terms of an Arctic strategy?

Natan: Well, first that they wouldn't presume they could create an Arctic vision, an Arctic platform on climate change, economic development, social development or research without participation of Inuit. Too many times in the past, federal priorities or policies are created for Inuit without Inuit participation. We need partnership rather than the previous forms of either paternalism or consultation, where we got to say what we would like to see but where we didn't get to take part in further stages, from drafting and forming the broad political intentions to designing the program itself.

Heather: Are there concrete supports that the federal government, or other organizations, could be providing to ensure that Inuit voices are heard?

Natan: Capacity is always a huge issue for our representational organizations. Often the expectation is that Inuit will just walk into the room and do all the work that is necessary to provide a clear, detailed position on whatever topic is at hand. But if you look at our organization, which is made up of about 30 people, and then you look at the federal bureaucracy, there is a mismatch in both resources and size. There should be consideration given, on major policy initiatives, to providing capacity for engagement. It is also up to Inuit to have some independence, and ensure that we have some independent revenue. The investments that we are asking for should leverage millions and millions of dollars in savings, in making better decisions based on Inuit input. I hope we will start to see investments in securing Inuit perspective and respecting that the perspective needs to be independent, but that it can be immensely helpful in the way in which policy is made, programs are rolled out and the Canadian government ensures success with Inuit across such a wide swath of Canada.

Heather: Is there an example of a partnership, program or a successful initiative that serves as a model for better partnership between Inuit organizations and government?

Natan: We did an oral health survey project with Health Canada, linked in with a wider Canadian health measures survey. The data didn't exist for Inuit communities, so we partnered with Health Canada in the design of the research and in undertaking that research. A summary report was released, showing the gaps in oral health conditions that Inuit have in relation to other Canadians. Because we had that evidence, and because the research process was designed in a way that we all could agree upon and believe in, then we were on the same page for arguing for interventions. Health Canada was able to put a lot more money into specific, targeted interventions for improved oral health in the Arctic.

That wouldn't have been possible in my opinion if we didn't have the evidence that we had created together.

Heather: What is your vision for the potential expansion of the private sector, and is that an important piece of economic development? What is ITK's role in that?

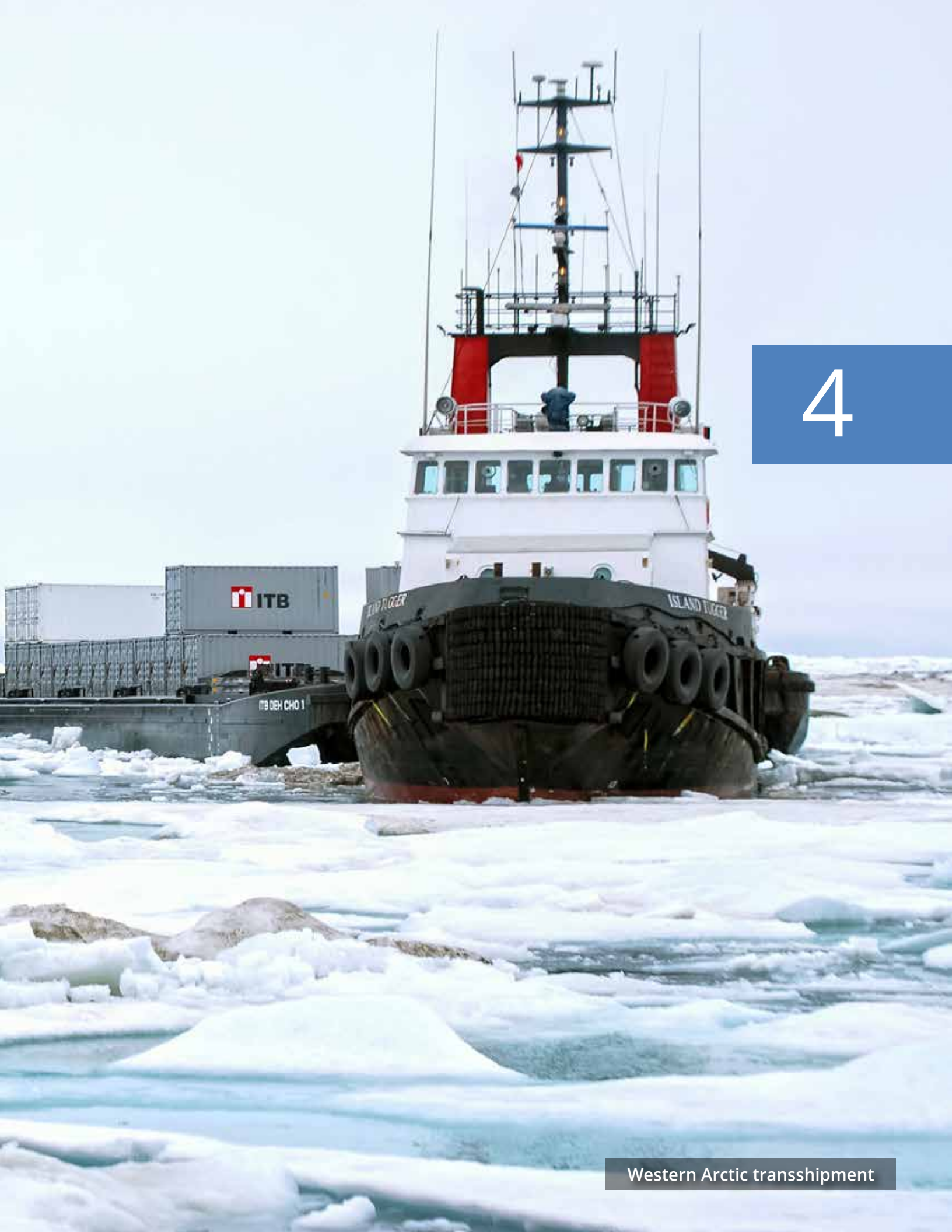
Natan: There will always be the need for natural resource extraction and other economic development activities in the Arctic. The way that our land claims are set up necessitates Inuit participation in economic development. A lot of people and organizations see the benefit of economic development in the Arctic as one of the tools to greater self-determination, and overcoming a lot of our socio-economic gaps in outcomes.

The challenges we've had to date are with the rules of engagement. The first consideration for private sector businesses should be how they go about working with Inuit land claim bodies, Inuit businesses, and economic development organizations, to ensure that there's a strong partnership from the beginning. Our land claim agreements and impact and benefit agreements are documents that have spirit and intent that are often just as important as the provisions within them. These structures are not to be seen as inhibitors of economic growth, but actually provide certainty and allow for partnerships. The basic idea that Inuit lands, and all things within Inuit lands, have to be developed with Inuit, and with Inuit benefiting, is one debate that I hope we've put to rest. The debate now is how do we do that, how can we be respectful of one another? How can we ensure that the environment is cared for? How can we ensure that our people have jobs and education, and long-term positive outcomes for these partnerships that are emerging?

Heather: What message do you have for our readers about the future of Canada's Arctic policy?

Natan: We live in a crucial time in relation to the future of the Arctic. Climate change is happening; our lives are all influenced by it. The future isn't as certain when it comes to the environment as it has been for the entirety of Inuit history. Canadians are also creating new potential, through considering what land claims mean and what the role of Inuit means to public policy, research and overarching politics within Canada. The key issue moving forward will be mutual respect. We, as Inuit, can respect the Government of Canada, we can respect the private sector and we can respect researchers. We demand respect in return. That is a positive thing for Canada as it overcomes colonialism. The only way to overcome our socio-economic challenges, and to thrive as a people, is if the respect that we give out so freely is also returned in the way in which people approach Inuit and approach the Arctic in their work. You can't demand that a system understand and implement spirit and intent. That is a shared path, and it's one that can only happen if people are open to understanding the world in a more fulsome way. It isn't as easy as it sounds; it is a daily struggle for us. We have to explain ourselves to the world each and every day, and that is something that I don't think a lot of people realize, because not many people have to do that. We are constantly telling everyone how we fit into the world, and it my hope, over time, that we have to do that less. Then we can focus on how we improve our shared role, instead of describing our world to those who don't understand it.

Apex Beach in Iqaluit, Nunavut



4

Western Arctic transshipment

Unexpected Possibilities

Arctic Ports and Northern Corridors in Transition

Kells Boland

Introduction

Investment in arctic ports and northern corridors is unfolding haphazardly and typically tied to a politically popular project of the moment. It's multi-jurisdictional nature is lacking a coordinating entity or comprehensive funding facility that is key to an actionable northern development strategy that does not yet exist.

Unexpected possibilities for infrastructure transformation in the North present a new context for problematic Canadian Arctic port and northern corridor investment. This paper looks at the current state of, and changing requirements for, linear infrastructure and arctic ports to support northern development opportunities.

Surface transport for northern community resupply and resource development today depends on three simple systems: the summer sealift in Nunavut and coastal Northwest Territories (NWT) communities; a combination of Mackenzie River barging and winter road trucking in the Mackenzie Valley; and trucking over a limited combination of paved and gravel highways in the rest of NWT and most of Yukon.

Rudimentary northern resupply over a vast area of Canada has relied on essentially the same skimpy infrastructure for the last 40 years. The only recent infrastructure investment is the Mackenzie Corridor construction that is currently underway on the Inuvik-Tuktoyaktuk all-weather road[1] and the Mackenzie Valley Fibre

1 See http://ith.dot.gov.nt.ca.

Canadian Arctic Ports and Northern Infrastructure Connections: Current Overview

- One Western Arctic shallow draft port at Tuktoyaktuk, NWT: barge terminals and marine supply bases from an earlier era of oil and gas exploration.
- Two deep water ports, both on the northern tip of Baffin Island, Nunavut: Nanisivik Mine Site dock repurposed as a naval facility, and the recently constructed Mary River Mine Milne Inlet Port.
- Two rail/marine transfer facilities: Hudson Bay Port of Churchill, Manitoba, with inland access by rail only, and Hay River, NWT Barge Terminal, also with a highway connection.
- Three highway gateways: Mackenzie Highway Gateway to Mackenzie Valley and Yellowknife, NWT; Alaska Highway Gateway to Yukon and Alaska; and Klondike/Dempster Highway Gateway to Mackenzie Delta and Beaufort Sea.
- Three road/railheads: CN Railheads connecting to the Mackenzie Highway at Hay River, NWT, and to the Alaska Highway at Fort Nelson, British Columbia; and White Pass and Yukon Route Railhead (inactive) connecting to the Alaska and Klondike Highways at Whitehorse, Yukon.
- Three winter road extensions: Tibbett to Contwoyto Winter Road extension of Yellowknife Highway; Mackenzie Valley Winter Road extension of Mackenzie Highway; Mackenzie Delta Winter Road extension of Dempster Highway.

Link.[2] However, unexpected possibilities are changing the perspective on arctic ports and northern corridors — and what will be required of them in the future.

Unexpected Possibilities Affecting Arctic Ports and Northern Corridors

An Unexpected Domestic Gas Surplus — Northern Liquefied Natural Gas Supply Chain

Yukon Energy and Northwest Territories Power Corporation together have pioneered a low-cost liquefied natural gas (LNG) supply chain that reaches from southern British Columbia to Whitehorse, Yukon, and Inuvik, NWT. To maximize savings relative to diesel, high-capacity LNG carriers have been designed, fabricated and permitted for highway hauls into the Arctic. This supply chain can be tightened to integrate high-capacity truck carriers with even lower-cost Alaska inside passage LNG marine carriers. Yukon mining projects will provide, and benefit from, the resulting higher-volume economies of scale that can further lower energy costs in the North.

2 See http://mvflproject.com.

Unexpected Stranded Oil Sands — New Export Options Include Rail or Pipeline to Alaska Ports

Alberta oil sands projects are held hostage by persistently poor prospects for proposed pipeline connections to refineries or export facilities on the Pacific, Atlantic and Gulf coasts. The Alyeska pipeline in Alaska between Prudhoe Bay and a tanker terminal at Valdez is under-utilized and potentially accessible from Alberta by rail or pipeline to Delta Junction. This may offer a less politically sensitive export route.

Unexpected Canol Shale Oil or NWT Gas Discoveries — Renew Mackenzie Pipeline Interest, also to Arctic Ports

Vast shale oil[3] discoveries in the Central Mackenzie Valley, along with new and earlier conventional gas discoveries, will also require the export access that is no longer assured via pipelines traditionally tied to Alberta.[4] However, the same pipelines pointed north may well find Arctic port and icebreaking tanker options more feasible. For example, the Russian Yamal LNG Project with icebreaking tankers and Sabetta Arctic port development in Western Siberia is proving this point.

Unexpected Ice Road Melt — All-weather Road Extensions toward Norman Wells and Diamond Mines

With a warming North, southern portions of winter roads are in jeopardy. To ensure workable operating seasons, all-weather roads will need to be incrementally extended along the Tibbett to Contwoyto Winter Road (TCWR) route to the NWT diamond mines; and along the Mackenzie Valley Winter Road route to oil and gas fields centred around Norman Wells.

Unexpected Arctic Ice Melt — More Ocean Tankers, Resource and Resupply Ships, Cargo and Cruise Transits

As climate change extends the Northwest Passage (NWP) navigation season, ship owners are poised to take advantage of new trading opportunities:

- Montreal-based Eastern Sealift ship owners are extending resupply operations into the Western Arctic, an area formerly served exclusively by the Mackenzie River barge system based at Hay River, NWT; and Western Sealift now includes Vancouver-based ocean tankers transiting around Alaska.
- NWP future viability as a shortcut for cargo ships has been demonstrated with Nordic Bulk Carrier *Nordic Orion*'s full transit eastbound from Port Metro Vancouver, BC, to Finland (2013) and with the Fednav *Nunavik*'s full transit westbound from Northern Quebec to China (2014).

3 For an assessment of these unconventional petroleum resources, see http://neb-one.gc.ca/nrg/sttstc/crdlndptrlmprdct/rprt/2015shlnt/index-eng.html.

4 Political push back is jeopardizing environmental approval prospects for Northern Gateway (BC Pacific Coast), Energy East (New Brunswick Atlantic Coast) and Keystone XL (Texas Gulf Coast) pipeline proposals from Alberta.

- Increasing viability of NWP transits also improves the feasibility of many resource development projects on or near the Arctic coast — with iron ore shipments starting in 2015 from the Mary River Mine Milne Inlet Port on Baffin Island as the precursor.
- A burgeoning cruise market is moving from small "expedition" vessels (10 transits in 2014) to large luxury cruise ships, with some 1,000 passengers booked on a Crystal Serenity Northwest Passage sailing between Anchorage and New York in 2016.

Unexpected International Arctic Activity — Driving an International Shipbuilding Program

The Canadian Coast Guard plans a new heavy icebreaker, *Diefenbaker,* and the Royal Canadian Navy is building five ice-capable Arctic/Offshore Patrol Ships. These ships will provide increased arctic surveillance, research support, and search and rescue capability alongside growing international activity in the arctic. Also building new ships for Arctic operations are China, currently completing a second icebreaker, and Russia, with the world's largest icebreaking fleet, which includes four nuclear icebreakers.

Recommendations for Focusing Future Investment Planning

These unexpected possibilities, coupled with the infrastructure that is there now, fit into five corridors that can focus future investment planning: Alaska Highway Corridor, Klondike/ Dempster Corridor, Mackenzie Valley Corridor, Coronation Gulf Corridor and Arctic Sealift Corridor.

Alaska Highway Corridor — Potential Pipeline or Rail Development Between Alberta and Alaska

This is a multi-jurisdictional, bi-national corridor through Alaska, Yukon, British Columbia and Alberta connecting to the Arctic Sealift Corridor at Prudhoe Bay, Alaska.

The Alaska Highway Route for a pipeline from Alaska to Alberta, long considered for Prudhoe Bay gas, is now unlikely with the State of Alaska promoting an in-state pipeline and LNG export alternative. However, that exhaustively studied pipeline right-of-way could be reworked for stranded Alberta oil sands bitumen, with a northbound pipeline connection at Delta Junction to the under-utilized Alyeska pipeline and Valdez tanker terminal.

A more attractive alternative for Yukon mining, as well as Alberta oil sands, is an Alberta-Alaska railway feasibility assessment (recently undertaken by the Alberta government[5]), following a Canada rail link study jointly sponsored by the Alaska and Yukon governments. Meanwhile, the Alaska Railroad has completed Phase One of its Northern Rail Extension[6] to Delta Junction — and ultimately to Canada.

5 See http://vanhorne.info/research-publications/alberta-alaska-railway.

6 See http://northernrailextension.com/PhaseOne.htm.

Klondike/Dempster Corridor — Export and Resupply via Alaska Inside Passage and Canadian Arctic Ports

This is a multi-jurisdictional, bi-national corridor through Alaska, British Columbia, Yukon and the NWT connecting to the Arctic Sealift Corridor at Tuktoyaktuk, NWT.

The Klondike/Dempster Corridor through central Yukon links the Alaska Inside Passage Pacific port of Skagway to the NWT Beaufort Sea Port of Tukoyaktuk (pending completion of the Inuvik-Tuktoyaktuk all-weather road currently under construction).

Future Klondike/Dempster Corridor development contemplates investment in:

- a coast-to-coast corridor that extends via the Klondike and Dempster Highways from the Pacific to the Arctic as a future land link to marine bases there;[7]
- Yukon's primary tidewater access route with inbound and outbound port facilities for mineral exports, as well as community and mine resupply at Skagway, Alaska;
- the new LNG Supply Chain to Whitehorse and Inuvik that also includes in-place Pacific port facilities and rail infrastructure 175 km inland, through the coastal mountains into Canada;[8]
- proposed new Kaminak North/Freegold Road links to Coffee Gold and Casino Copper mining projects, as well as a number of other mining prospects; and
- fibre optic cable installation along the Dempster Highway providing mutual redundancy for the Yukon fibre network and the Mackenzie Valley Fibre Link with which it will connect at Inuvik.

Mackenzie Valley Corridor — Pipeline, Highway and Fibre Optic Development

This is a multi-jurisdictional corridor through the NWT and Alberta, intersecting the Klondike/Dempster Corridor at Inuvik, NWT, and connecting with the Arctic Sealift Corridor at Tuktoyaktuk, NWT.

Along with the Norman Wells Oil Pipeline operating since 1985, Mackenzie Gas Pipeline construction to an already over-supplied Alberta gate is now permitted but no longer financially feasible. However, Canol shale oil discovery raises the prospect of a reverse direction pipeline for export access via new arctic ports or connection to the Alyeska pipeline. In fact, this corridor could also provide northbound pipeline delivery to export position for Alberta oil sands bitumen as well as conventional oil and gas.

Logistics support for central Mackenzie Valley development may warrant all-weather road extensions to replace shortened season winter road operations to Norman Wells — and ultimately to Inuvik. Meanwhile, the Inuvik to Tuktoyaktuk all-weather road now under

7 After completion in 1980, and through the mid 1990s, the Dempster Highway was used extensively as an oil field supply route connecting to winter ice roads that accessed marine supply bases at Tuktoyaktuk, McKinley Bay and Herschel Basin.

8 White Pass & Yukon Route rail and port facilities ceased mine haul operations in 1982, with the rail corridor through coastal mountains now used by summer tour trains from Skagway, Alaska, as far as Carcross, Yukon, but out-of-service to Whitehorse.

construction will replace the Mackenzie River East Channel Ice Road by 2018. Also under construction is the Mackenzie Valley Fibre Link to the Inuvik Satellite Ground Station.

Coronation Gulf Corridor — Slave Geological Province Arctic Port and Southern Highway Links

This is a multi-jurisdictional corridor through the NWT and Nunavut, connecting with the Arctic Sealift Corridor at Coronation Gulf.

This evolving corridor passes through the Slave Geological Province between Yellowknife and a Coronation Gulf Port. Annual mining company joint venture construction and self-financing of the TCWR provide NWT diamond mine supply access as far as Contwoyto Lake. A proposed Grays Bay Port and Road would complete this corridor to Coronation Gulf for marine export access to Izok Lake and Hackett River base metal mining projects in the Kitikmeot Region of Nunavut.

Warming winters jeopardize southern TCWR operations and the following alternative solutions are under consideration:

- complete all-weather road replacement of the TCWR;
- incrementally extend the all-weather road into southern TCWR segments that melt sooner; and
- divert bulk commodity supply to a future Grays Bay Port and Road, easing TCWR traffic impacts.

Other infrastructure investment possibilities for this corridor include another Alberta oil sands bitumen pipeline route to a deep-water Coronation Gulf Port, and an electrical grid extension proposed to improve mining project viability.

Arctic Sealift Corridor — Canadian Arctic Seaway System of East, Central and West Arctic Deep-water Ports

This is a multi-jurisdictional international maritime corridor along the coast of Nunavut, NWT, Yukon and Alaska that extends through the NWP, embracing the entire coastline of Nunavut, the NWT, Yukon and Arctic Alaska.

With a warming north extending the Arctic navigation season, new possibilities for port development parallel the changing nature and scope of Arctic marine shipping. Besides coastal barge operations, marine shipping will increasingly include deep draft cargo vessels, tankers, cruise ships and research vessels, along with the icebreakers and patrol ships to look after them.

The Russian Northern Sea Route (NSR) is a model for commercial seaway development with canal-like tonnage-based tolls to recoup costs of compulsory arctic marine services, essential navigation support and contingency capabilities, including:

- icebreaker-escorted convoys, ice navigators/pilots, satellite weather and digitally updated charts; and
- recourse to a system of refuge ports, salvage services, and search and rescue capabilities.

A counterpart Canadian Arctic Seaway through the NWP is not likely to attract the same level of traffic as the Russian Northern Sea Route through the Northeast Passage, simply because the NSR is much shorter for the major North Asian-Northern Europe trade. However, a currently increasing core of full-transit traffic will be augmented by the sort of destinational Arctic resource traffic already moving in and out of the Baffinland Mary River Iron Mine. That increases the prospect for a seaway system of strategically located joint-use deep-water ports throughout the Arctic Sealift Corridor. These include Milne Inlet and Nanisivik Baffin Island deep-water ports already in the Eastern Arctic; Roberts Bay, Bathurst Inlet or Grays Bay Coronation Gulf port sites in the Central Arctic; Tuktoyaktuk[9] or King Point Beaufort Sea port sites in the Western Arctic; and Nome Deep Water port development on the Bering Sea coast of Alaska.

Policy Points

The following policy recommendations are intended to promote more integrated, cross-jurisdictional, strategic planning and to incrementally move from conceptual visioning, through coordinated screening, to selective facilitation for nation-building infrastructure in the North:

Adopt a Pan-North American Arctic Corridors Strategic Planning Approach to identify common infrastructure requirements for:

- bi-national security (North American Aerospace Defense Command maritime mission, Arctic/offshore patrol ships and icebreakers);
- cargo/cruise/research ship navigation (icebreaking, search and rescue, salvage support);
- environmental protection (tanker monitoring, ship spill response, blow-out containment);
- resource development (onshore and offshore oil and gas, mine supply and mineral exports);
- community resupply (fuel and dry cargo);
- energy transmission (oil, gas and electricity); and
- communications (data, voice and satellite).

9 Although moderate draft is available within Tuktoyaktuk Harbour and it already is a well-developed coastal barge port, a shallow channel entrance extending 27 km to deep water requires a major and ongoing dredging project for deep-draft port operations.

Meet those requirements in common through an Arctic Ports and Northern Corridors coordinating agency that will vet infrastructure investment options to:

- seek strategic solutions melding multi-modal regional and cross-jurisdictional requirements for northern ports, roads, railways, pipelines and transmission systems;
- address Aboriginal rights and community concerns to obtain social licence in parallel with economic opportunities that can be retained for all Northerners;
- spread, share and reduce financial burden and risk by screening for project synergies, eliminating facility duplication, building scale economies and pre-permitting common use corridors; and
- monitor and adjust for changing risks and opportunities, while updating best practices for public and private investment in northern infrastructure.

Facilitate infrastructure investments within port and corridor authorities that can incubate specific projects with a combination of public, private and aboriginal participation to:

- plan, permit, finance, construct and/or operate commercially viable support facilities within northern development corridors;
- screen consolidation opportunities from overlapping, intersecting or parallel projects and forge common interest partnerships; and
- grant public interest franchises for private sector investment, with user-pay tariffs and/or shadow tolling[10] to achieve the economic viability that can attract financing from infrastructure funds.

Conclusion

Unexpected possibilities are expanding perspectives on the future for arctic ports and northern corridors. It is time to collectively advance common interests for multi-user legacy infrastructure — which the North cannot otherwise afford.

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10 Shadow tolls are contractual usage fees paid by a government for infrastructure built or maintained using private funding. Shadow tolls can provide a subsidy until direct user-pay tolls are adequate to cover total costs.

Milne Inlet Port on Baffin Island

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Permafrost-damaged road, Yellowknife, Northwest Territories

Environmental Challenges for Governments in the North

Chris Burn

Introduction

Federal public rhetoric regarding the North from 2006 to 2015 was dominated by issues of security and resource development. Now, however, the prospects for resource development in the Arctic are modest, given the reduced market prices of energy and minerals, while the diamond industry, based entirely on demand for jewellery, suffers from lacklustre economic growth in developed countries. The previous Liberal government spent several years early in this century encouraging the Mackenzie Gas Project — a proposed natural gas production and transportation system linking gas fields near the western Arctic coast with northern Alberta via a pipeline along the Mackenzie Valley of Canada's Northwest Territories. There is currently no similar megaproject around which federal attention is able to coalesce.

In fact, the greatest policy challenge facing environmental governance is posed by climate change. Economic pressures normally trump mitigation of greenhouse-gas emissions in government policy, but Prime Minister Justin Trudeau and his minister, Catherine McKenna, appointed specifically for climate change appear to recognize that Canadians have a relatively large carbon footprint when it is calculated on a per capita basis. The government has signalled that policy around climate change will be a priority. However, despite the attention generated by high-profile international events such as the Conference of the Parties in Paris, climate change is a nebulous concept for many Canadians, and there is, as yet, no cohesion with respect to public action aimed at reducing net carbon emissions.

North of 60°N, climate change is real and immediate. Simulations of future climate indicate that the magnitude of climate warming anticipated in our North is greater than we expect for southern latitudes, and that the majority of warming will be felt

in autumn and winter. For example, with respect to the 1971–2000 baseline, we expect annual temperatures in the western Arctic to be at least 3°C higher by 2050 and 4°C higher in autumn and winter. The magnitude will increase as time passes. There are two principal physical impacts of climate warming that have already become apparent: first, the reduction in late-summer sea-ice extent; and, second, degrading permafrost.

This paper focuses on three distinct dimensions of climate change in the North that Canadian governments will face in the immediate future: the implications and impacts of building and maintaining public infrastructure on thawing permafrost; co-management of environmental effects; and increased tourism in the North.

Public Infrastructure

Many northern communities, especially those north of the treeline, are built on permafrost. Warming of permafrost leads to loss of bearing capacity for pile foundations (pillars anchored in permafrost that provide a platform for buildings) while thawing and settlement reduces the functional state of infrastructure. In September 2013, for example, Inuvik Mike Zubko Airport was closed to jet traffic because of the settlement of the runway, and both the Alaska Highway northwest of Destruction Bay in Yukon, and Highway 3, northwest of Yellowknife, Northwest Territories (NWT), are under continual maintenance from the degradation of ice-rich permafrost beneath their undulating surfaces. In particular, thawing beneath the side slopes of road or runway embankments leads to rotation of these shoulders, causing deep longitudinal cracks in the driving surface.

Long-term vigilance is required for the national transportation network, where it is built upon permafrost. Roads and airports in the North, constructed with significant federal investment, are now threatened by thawing substrates. The network is critical for sustenance of northern communities, which rely on shipments of groceries and other supplies from the South, and need airstrips for rapid access to health care in regional centres.

Yukon has undertaken a long-term experiment near Beaver Creek (near the Alaska border) to test a highway embankment with a variety of innovative designs engineered to mitigate the thermal disturbance of the structure on the underlying permafrost. These include light-coloured surfacing materials to reflect incident radiation, sun and snow sheds to shade the embankment, and pipes to circulate cold air through the embankment sides in the winter. The most successful, and the only design that has prevented thawing of permafrost beneath the embankment involved construction with rocks rather than gravel, so that in the winter heat movement through and out of the embankment is enhanced by convective air flow in the spaces between the rocks. These techniques are pricey, with the air convection embankment costing about six times more than a normal embankment over a 30-year operating life, when design, construction and maintenance costs are considered. While we do not anticipate that whole highways will require new embankments, sections of each road and runway where permafrost degradation occurs will need mitigation as climate change proceeds.

It is possible to plan for the consequences of climate change by developing a smart mitigation strategy for our transportation network in the North. This will involve careful assessment, on a kilometre by kilometre basis, of the current embankments and their performance. Terrain

analysis of permafrost conditions along the highway corridor may identify locations of greatest risk for failure of embankments, due both to gradual degradation of permafrost and potential sudden failures. It is then that strategic locations for application of novel construction techniques that will prolong facility life can be identified. Planning for climate change is critical, because the magnitude of climate warming anticipated in the North is greater than the 2°C target for limiting global climate change.

Co-management and Land Claims Implementation

Settlement of land claims and devolution of regulatory powers to Yukon and NWT have made fundamental changes to environmental governance in northern Canada. In Nunavut, the land claims agreement has made adjustments to the governance regime comparable to the other territories, but devolution is not as advanced. Furthermore, the new federal government has made reconciliation with indigenous people one of its initial priorities, and, north of 60°N, this will involve good-faith implementation of extant land claims agreements.

The federal government signed land claims agreements throughout most of the northern territories after long and careful negotiations. Land claims are resolved in three-way agreements between indigenous people, territorial governments and the federal government. Co-management of environmental resources and assessment of development projects are key parts of these agreements. The management is achieved through jointly constituted boards, supported by the work of board staff, and federal and territorial scientists. The boards are key agents of land claims implementation.

Commonly, co-management is dominated by concerns over wildlife harvesting, especially of caribou and polar bears. Co-management structures (i.e., the boards and their staff) are funded through direct federal agreements, or by transfers from the federal government via territorial governments. The co-management structures are broadly symmetrical among the parties as regards representation, but asymmetrical with respect to financing, as per the negotiated agreements.

The land claims agreements promise federal support for wildlife management boards. The boards review the status of wildlife populations and set harvesting quotas on this basis. These boards find themselves facing previously unanticipated challenges associated with climate change, for instance, management of wildlife populations under stress, such as the polar bear. The obligations of the boards have grown as a result of these unanticipated challenges. There are two principal issues with the expansion of board activities and obligations: first, support for the boards has barely kept pace with inflation, and does not recognize the expanded roles, duties and activities of the boards. Second, participation by land-claim beneficiaries in co-management activities, such as field surveys, is not always facilitated by federal agencies. This may lead to mistrust of the federal agencies' results. In the North, local issues may become magnified in significance, especially during controversy, and may undo successful collaboration in other areas on the agenda.

Environmental and social assessments of development projects are also conducted under processes that are negotiated through land claims. The federal government is a principal party to each settlement. In Nunavut, the federal failure to establish an operational monitoring

program, as laid out in the land claim, led to judgment against the government in 2012. In Yukon, the Council of Yukon First Nations launched litigation in October 2015 against the government over Bill S-6 — the Yukon and Nunavut Regulatory Improvement Act — and its unilateral imposition of changes to the environmental assessment regime laid out in the Yukon First Nations' land claims settlement. Given the public statements by the prime minister and other members of his Cabinet that the government intends to address many issues raised by indigenous people, action in this area will be anticipated, for example by repealing sections of Bill S-6 found to be at variance with the Yukon final agreements.

Tourism in the Arctic

Canadian portions of the Arctic Ocean remain under federal jurisdiction and are likely to see increased human activity with reduced sea ice in summer, increasing the need for vigilance and capacity to respond to human and environmental emergencies. Sea-ice effects have enhanced cruise ship tourism in our Arctic, which is the primary source of new passages through the archipelago. The increased traffic requires more comprehensive bathymetric charts of the sea floor, greater search-and-rescue capacity, and an ability to respond to environmental contamination from large ships. All of these areas are under federal jurisdiction. Although to date, relatively small vessels have caused a few problems, as when the MV *Clipper Adventurer* ran aground, the first transit by a large ship, *Crystal Serenity*, is planned for August 2016. We are not prepared for a rescue mission to a large ship, when time will be limited before hypothermia becomes a risk for the thousands of passengers and crew accustomed to cruising in a warmer environment.

In addition, national parks constitute a significant component of the federal environmental presence in the North. The parks are mostly in remote locations without easy access. As a result, the parks have few visitors. The lack of visitor facilities in these national parks renders them attractive to wilderness travellers, and inhibits other Canadians, less familiar with our wilderness, from visiting them. In the last two to three years, Parks Canada has begun to improve facilities in its parks in the western Arctic and to organize access for a variety of visitors. The field units that have begun to consider more assertive strategies to draw Canadians into our northern environmental heritage have met with considerable initial success, demonstrating that Canadians of many backgrounds share interest in our natural heritage, including the remote Arctic. This initiative promises to improve Canadians' knowledge and awareness of northern environments in a tangible way.

Policy Recommendations

Public Infrastructure Sustainability

- The federal government should continue to plan for budgetary requirements to mitigate significant effects on northern transportation infrastructure due to climate change.
- The federal government, in partnership with northern and provincial governments, must conduct research to identify locations along established transportation corridors where the infrastructure may require investment due to permafrost degradation.

Co-management and Land Claims Implementation

- The federal government must fulfill its obligations under land claims agreements. This may include examining Bill S-6, the Yukon and Nunavut Regulatory Improvement Act in the context of the Yukon Land Claims.
- The federal government should examine the operation of wildlife management boards to determine if their scope has expanded in light of climate change effects to wildlife, and increase support to the boards accordingly.

Northern Tourism

- Search and rescue preparedness must increase and be associated with the increase in tourist cruising in the Arctic Ocean, including transits of the Northwest Passage.
- As shipping increases in Canadian Arctic waters, preparedness for dealing with unanticipated discharges to the environment must be maintained.
- The federal government should continue to increase access to northern national parks for a wide spectrum of Canadians, including new Canadians, as planned by Parks Canada.

Conclusion

In the last two decades, environmental governance in the North has been largely concerned with assessment and regulation of development projects. Significant annual expenditures are now anticipated, in perpetuity, for mitigation of environmental effects of abandoned mines, in particular at Faro in Yukon and the Giant Mine near Yellowknife, NWT. In addition to these obligations, the federal government faces the prospect of climate changes that will be amplified in the Arctic. In Canada's western Arctic, the magnitude of climate warming since 1970 has already surpassed the target of 2°C for containing global climate change. A large fraction of the physical infrastructure in the territories is built on permafrost. The federal government must assist these jurisdictions to mitigate the effects of thawing permafrost on this infrastructure, particularly throughout the diverse landscapes present along the transportation corridors and at airports.

Climate warming also poses direct challenges for management of wildlife populations and the responsibilities of northern co-management boards. The ability of these boards to function effectively and fulfill their negotiated mandates requires significant attention, particularly in light of the declared policy to renew federal relationships with indigenous peoples.

Finally, the opening of the Arctic Ocean and the passages between Canada's Arctic Islands to increased shipping requires federal vigilance with respect to emergency preparedness and contamination of Arctic waters.

Chris Burn held the Natural Sciences and Engineering Research Council of Canada Northern Research Chair in Permafrost in the Yukon and Northwest Territories at the Department of Geography and Environmental Studies, Carleton University, 2002–2012. His research program is distinctive in the extent of collaboration with northern agencies. At present the emphasis is with the Departments of Transportation in Yukon and the Northwest Territories. He has led development of an interdisciplinary master's program in northern studies at Carleton, which has just been approved by the university.

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Canadian Coast Guard during Operation Nanook in Resolute Bay

Canada's Northern Strategy

A Comprehensive Approach to Defence, Security and Safety

P. Whitney Lackenbauer

Introduction

Debates about Arctic defence and security remain significant in shaping expectations for the Government of Canada, and for the Canadian Armed Forces (CAF) more specifically. Despite the considerable ink spilled on boundary disputes and uncertainty surrounding the delineation of extended continental shelves in the Arctic, official statements by all of the Arctic states are quick to dispel the myth of a race between circumpolar nations, arming in preparation for a resource-fuelled conflict. In short, policy trends over the past decade indicate a strong trend toward international cooperation in the region and more closely integrated domestic efforts, as identified in Canada's Northern Strategy — a trend that external developments, such as Russian aggression in Ukraine, may complicate but should not fundamentally undermine or disrupt.

Although official Canadian assessments do not anticipate any conventional military threats to the Arctic region, they do foresee a rise in security and safety challenges that require an integrated whole-of-government approach. Conversations and meetings with senior federal, territorial and military officials demonstrate the need for more academic attention on security issues (which are expected to proliferate as new development projects and trade routes emerge in the Arctic) at the operational level. This requires a more nuanced and multi-faceted definition of security than what typically has been a narrow, academic fixation on the possibility of interstate conflict in the region, which has perpetuated in popular media coverage.

Implementing Arctic security policy that reflects a comprehensive, whole-of-government approach does not require a fundamental reappraisal of Canada's existing framework, however. Issues related to Russia's intentions and investments in reinvigorating its Arctic defence forces, North Atlantic Treaty Organization (NATO)'s role in the circumpolar world, and Canada's long-standing continental defence relationship with the United States remain important, but these hard considerations should not push soft security to the margins. Indeed, given the multi-dimensional nature of emerging Arctic challenges, the Government of Canada has already adopted definitions of Arctic security that move beyond traditional frameworks and focus on potential military conflict, to emphasize broader human and environmental issues that government and northern representatives identify as the most pressing security and safety concerns. These include search and rescue (SAR), major transportation disasters, environmental disasters, pandemics, loss of essential services (i.e., potable water, power, fuel supplies), organized crime, foreign state or non-state actor intelligence gathering activities, attacks on critical infrastructure, food security and disruptions to local hunting and transportation practices caused by shipping or resource development. Rather than positing military and human security agendas in conflict, academics and other stakeholders should support policy-making efforts to develop a collaborative, culturally complex whole-of-government paradigm that is consistent with Canada's Northern Strategy goals, to address emerging threats and hazards in the twenty-first century.

The whole-of-government framework has emerged as a centrepiece of federal policy in the Arctic because it offers a way to rationalize services and leverage capabilities across government(s) and avoid costly redundancies. The concept is predicated on enhanced horizontal coordination between government departments and agencies (and, in some cases, non-government stakeholders) to cut across traditional institutional silos and achieve a shared goal. Given the dearth of infrastructure and limited government capacity in the Arctic, cooperation is a prerequisite to effective regional and local operations.

Flowing from this reality, recent strategic documents situate the military's role in a broader, integrated governmental context. While other departments and agencies are the mandated leads to deal with most northern security issues, the CAF are expected to "lead from behind" in many scenarios given their assets/capabilities and the limited resources of other potential responders in the region (Department of National Defence 2008). Nevertheless, how the CAF and federal government departments and agencies actually implement and exercise a whole-of-government directive is far from straightforward. Officials have acknowledged the potential value of integrated government approaches since the 1970s, and advanced the concept in the past two decades of the twentieth century when federal, territorial and northern indigenous representatives worked cooperatively to address environmental contaminants. Translating a whole-of-government philosophy into effective planning and operations, however, has always proven difficult. As Major-General Christopher Coates observed as the former deputy commander of Canadian Joint Operations Command, it is easy for departments to stay insulated within their own priorities and mandates because "there is no single focal point for domestic federal arctic efforts" (Trent University, Royal Military College of Canada and St. Jerome's University 2014).

Accordingly, efforts to create interdepartmental synergies to prepare, coordinate and respond to practical security and safety challenges in a domestic Arctic context remain a work in progress that should receive ongoing attention from the Trudeau government. Despite the emphasis placed on whole-of-government approaches in official policy statements, operations over the past decade reveal myriad barriers to effective integration and linking of government, local and private sector partners. These obstacles include a lack of designated funding for initiatives that cut across departmental or government lines, policy structures that do not align (particularly across the civilian-military divide), and jurisdictional silos that inhibit (or prohibit) collaboration (ibid.). In the case of the Canadian Arctic, implementation requires fundamentally altering military and public sector cultures, including chains of command, procedures, channels of communication and even issues of terminology and vocabulary (Gizewski 2011). While interdepartmental deputy and assistant deputy minister committees in Ottawa and the Arctic Security Working Group in Yellowknife encourage collaboration on security initiatives between National Defence, Public Safety Canada, the Royal Canadian Mounted Police, the Canadian Coast Guard, the Canada Border Service Agency, Transport Canada and other stakeholders, significant friction and gaps remain that inhibit operational efficiencies and effectiveness. Is new government machinery needed to advance whole-of-government solutions in the Arctic? How can governments better engage non-governmental and civil society organizations, as well as the private sector, for partnership, guidance and assistance to produce innovative, affordable solutions and to encourage burden sharing?

Federal stakeholders also must collaborate with territorial/provincial, municipal and Aboriginal governments that have their own resources, capacities, priorities and needs in the region. The new government has placed a strong emphasis on fostering "a renewed, nation-to-nation relationship with Indigenous Peoples, based on recognition of rights, respect, co-operation, and partnership," as reflected in the preamble to Prime Minister Justin Trudeau's (2015) mandate letters to his ministers. This is likely to encourage policy makers to re-engage core questions, such as how duties to consult and accommodate Aboriginal peoples apply in the security and safety sectors, and how priorities of northern indigenous communities fit with those of Ottawa (Inuit Qaujisarvingat/Inuit Knowledge Centre 2013). Above all else, federal government efforts must continue to support security and safety initiatives that achieve enduring, positive results for northern communities. With the mandate letter to Minister of National Defence Harjit Sajjan intending to "renew Canada's focus on surveillance and control of Canadian territory and approaches, particularly our Arctic regions, and increase the size of the Canadian Rangers," the importance of local Northerners' contributions are recognized in the government's intent to reinforce the Rangers as an intrinsically valuable "force multiplier" when it comes to northern defence, security and safety (Lackenbauer 2013). The danger lies in ensuring that expansion is attuned to local capacity and is met with more resources to support actual activities, rather than simply using growth as a symbol of heightened commitment.

The federal approach to northern affairs has shifted over the past three decades from an overly centralized, paternalistic approach, toward an emphasis on supporting and enabling Northerners and their territorial and local governments to manage their own affairs. "Our vision for the Arctic is a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive

ecosystems," the Conservatives' Arctic Foreign Policy Statement (Department of Foreign Affairs and International Trade 2010) promoted. This vision, which mirrored that in the Liberals' Northern Dimension of Canada's Foreign Policy (Department of Foreign Affairs and International Trade 2000), is also reflected in Justin Trudeau's electoral platform. Accordingly, there is little reason to anticipate major changes to Canada's Northern Strategy — a strategy that the Conservative government cast in partisan terms (as did their predecessors) but which reflects fundamental pillars (sovereignty, environmental protection, economic development and improved governance) that extend back through the governments of Pierre Trudeau, Brian Mulroney, Jean Chrétien and Paul Martin (Dean, Lackenbauer and Lajeunesse 2014). Accordingly, there is no need for the new government to reverse course and scuttle the proposed investments in Arctic defence and security capabilities that were announced by the Harper government. While introduced in an ad hoc manner that sometimes clouded the military's practical supporting role to other government departments, these major projects — from Arctic/Offshore Patrol Ships to the RADARSAT constellation mission — actually fit well with the Trudeau government's defence and security agenda (see Lajeunesse and Lackenbauer 2016).

Given the complexity and pace of Arctic change, the CAF's Arctic integrating concept notes that "new interpretive frameworks are essential in order to respond effectively to changes occurring in the region. Until these frameworks have been established, it may be difficult to understand what is happening in the Arctic, and provide options on how best to respond to crisis or emerging threats to Canadian security or sovereignty" (Department of National Defence 2010, 6). Competition between Arctic states certainly exists, but this does not preclude cooperation in areas of common interest. Although the Ukrainian crisis has spilled over into Canadian Arctic security rhetoric since March 2014, it does not portend a new Arctic cold war, nor does it render obsolete the policy frameworks or underlying assumptions and logic that guide Canada's integrated Arctic security strategy (Lackenbauer 2014). From a policy standpoint, it is important to distinguish between *grand strategic threats* (such as Russia-NATO relations, energy security and global climate change mitigation) that have Arctic dimensions but are best seen through a broader lens and managed accordingly, and Arctic *regional and local challenges* (such as specific forms of SAR, humanitarian assistance to isolated communities and climate change adaptation initiatives) that are appropriately conceptualized and addressed through a narrower lens.

Before promoting new solutions to the most probable threats, hazards and challenges to Canadian security and safety, the Trudeau government is well advised to look at what has been proposed or considered in the past, as well as best practices over the past decade. Whole-of-government exercises, such as the annual Operation Nanook, involving responses to various security and safety scenarios, have yielded important lessons that have been observed but remain to be aggregated and fully articulated in robust policies, procedures and governance mechanisms. Evolving these to become leaner, more efficient operations with a minimal environmental footprint, while maximizing local capacity building, is worth considering. Furthermore, Canada will benefit by looking to other Arctic states, particularly the United States, for opportunities to leverage expertise and resources to deal with potential security and safety risks, given the high degree of uncertainty when it comes to regional environmental and economic conditions.

Conclusion

The Arctic poses unique challenges that require innovative, comprehensive approaches to synchronize efforts and address security and safety threats/hazards in an efficient and credible manner that promotes national goals of regional prosperity and stability and is responsive to Canadian interests and values. Better integrating government actions will help to achieve strategic and policy objectives and provide greater clarity and transparency in decision making — key objectives of the Trudeau government. Diverse organizational cultures must be bridged to ensure that planning, training and operations make efficient use of limited resources, given austere budgetary environments and the increasing tempo and complexity of activities in the Arctic. In turn, streamlined policy and decision making that remains sensitive and receptive to diverse views and perspectives, reduces redundancies, leverages government and non-government resources, and produces greater operational certainty will engender a higher level of trust and credibility among stakeholders and rightsholders than can be achieved by units working in isolation.

While strategic assessments do not perceive direct threats to Canada's territorial integrity or anticipate any major changes to traditional defence roles, the policy community is attentive to emerging security and safety challenges associated with new environmental, human and cultural security risks. Toward this end, academics can play an important role in developing innovative frameworks to help inform whole-of-government approaches, consistent with Canada's northern and national interests, that address security and safety needs in a culturally and environmentally appropriate manner. Clear, transparent messaging about the most pressing defence, security and safety challenges can help to dispel ongoing myths about circumpolar conflict. Policies also must remain sufficiently flexible to accommodate a high degree of uncertainty about future access to and activity in the region, changing fiscal realities, popular pressures for symbolic action to showcase Canadian sovereignty and the interests and priorities of northern communities — the most important variable of all.

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Canadian Rangers' training camp in Alert, Nunavut

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The gavel used by the chairman of Senior Arctic Officials at Arctic Council meetings

Beyond the Arctic Council

Cooperation Needs and Gaps in the Arctic Region

Heather Exner-Pirot

The rise in geopolitical importance of the Arctic region since the mid-2000s has been well articulated and documented. Concomitantly, the stature of the Arctic Council, the region's premier intergovernmental forum, has gone up, as demonstrated by a growing interest in the organization by both Arctic and non-Arctic state governments.

This state of affairs has led many commentators to invest in the Arctic Council as a monopolizing force in Arctic politics; to place it at the apex of a hierarchichal pyramid, rather than just one among many regional organizations. The clearest evidence of this has been the undue importance assigned to the Observership that was granted to a number of Asian states to the Arctic Council in 2013; the reaction[1] against the so-called Arctic Five grouping of Arctic littoral states (Canada, Denmark/Greenland, Norway, United States and Russia), which has been denounced as undermining the Arctic Council and the regional stability and peaceful consensus it has embodied; and the lamentation[2] that the Arctic Council doesn't address traditional security and military issues in the region.

There is no doubt that the Arctic Council is an important — probably the most important — intergovernmental forum in the Arctic region. But it is facile to suggest that all Arctic affairs can or should fall within its mandate. The Arctic Council has real structural and organizational limitations. As regional governance gets more complex, additional forums should be welcomed — or as many already exist, recognized — for the role they play in effectively governing the Arctic.

1 See for example, Lackenbauer (2012) and Conley and Melino (2016).

2 See for example, Steinberg and Stash (2015, 10) and Iceland Ministry for Foreign Affairs (2015).

The Nature of Arctic Governance

Perhaps it is anticipated that most international relations theorists and government diplomats would see the Arctic region primarily through a lens of state-to-state cooperation (with the inclusion of indigenous peoples identified as a welcome novelty). Doing so naturally highlights the centrality of the Arctic Council. But a trend is emerging that, on the one hand, sees the Arctic Council as much more powerful than it is in practice; and on the other hand, diminishes the role that other fora play.

Limitations of the Arctic Council

Commentators sometimes depict the Council as a catch-all for Arctic issues, when in fact it was established with a very circumscribed mandate: the Arctic Council deals with issues of environmental protection and sustainable development. Amongst other things that regional organizations typically address, this excludes trade, security and immigration. And while sustainable development has been painted with a wide brush in the Arctic, the Council's work in that regard has been extremely limited, though arguably useful and appropriate, dealing mainly with research syntheses and best practices on issues such as suicide prevention, cancer incidence and promoting indigenous languages. The Arctic Council has no mandate or funding to devise policy nor implement programming in the key areas of health, education and infrastructure.

In addition to the narrow mandate, the structure of the Arctic Council imposes limitations. It is technically a forum and not a treaty-based organization. It has no legal character, meaning it has no mandate to enact or enforce agreements or regulations; the Search and Rescue (2011) and Marine Oil Pollution, Preparedness and Response (2013) Agreements, for example, were concluded under its auspices, but not *within* the Arctic Council.

In recent years, the Council has been equipped with a permanent secretariat, however it provides mainly administrative functions and is not an executive body. The Arctic Council is managed by a two-year rotating chairmanship, with the chair given the right and responsibility to set the agenda and host meetings. While many agree this format provides momentum to the Arctic Council, it does, at the same time, mean agendas are often reflective of the chair's domestic priorities, it means that goals are often pursued on a short-term basis, and that there can be discontinuity between chairmanship agendas.

Funding is also inconsistent, with a limited defined contribution from all Arctic states (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and United States) to fund secretariat activities (US$106,418 per annum, though Norway, as host, contributes significantly more). Programmatic and working group funding are often in-kind and/or ad hoc, depending on states' particular interests and objectives. The level of Arctic Council funding is not such that it can implement policy or programming outside of the parameters of other levels of governance, even if states were amenable to such a role.

The Arctic Council also has as a category of membership of Permanent Participants (PPs), which includes six organizations representing indigenous peoples of the Arctic across seven Arctic states. Actual decisions in the Council are made based on consensus of the eight Arctic states; however, in practice, PPs are actively consulted and have significant influence on how and if activities move forward. At the same time, the PPs have real and glaring administrative and financial capacity challenges when compared to states. Often it is the same one or two people that are responsible for attending and contributing to Arctic Council meetings on behalf of the PPs. While work is being done to improve the capacity and funding autonomy of the PPs, their central role in the Arctic Council limits the amount of work that the Arctic Council can take on while still meaningfully involving them. The breadth and scope of the Arctic Council's mandate cannot expand much more without compromising the essential aspect of indigenous inclusion in its work.

The Role of Alternate Fora

If it is true that the Arctic Council cannot manage all of Arctic governance, it is also true that it has never tried to do so. At the regional level, cooperation has come in many formats, many of which preceded the Arctic Council's establishment in 1996. These include organizations such as the Northern Forum, the International Arctic Science Committee and the Association of World Reindeer Herders.

Subregional cooperation has also been very prominent in the Arctic, from the Barents Euro Arctic Council and the West Nordic Council to the Inuit Circumpolar Council and the Saami Council. In general, subnational Arctic cooperation between the Nordic states and in the Barents region has been strong, while cooperation between Russia and Alaska, and Alaska, Canada and Greenland has been weak outside of indigenous linkages. The Arctic Caucus of the Pacific NorthWest Economic Region, encompassing Alaska, Yukon and the Northwest Territories, may alter that somewhat as a relevant platform for closer economic and infrastructural development cooperation across boundaries.

While it is not always well documented, there has been significant intergovernmental cooperation outside of the Arctic Council as well. Indeed the most important governance arrangements impacting the Arctic come from international, non-regional bodies: the 1982 UN Convention on the Law of the Sea (UNCLOS), which governs much of the use of the Arctic Ocean; and the International Maritime Organization, which concluded a mandatory Polar Code for ships operating in polar waters this year. Because these are legally binding conventions, they are much more effectual in terms of delimiting states' actions.

Other major treaties that apply to the Arctic are: the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the UN Framework Convention on Climate Change, the UN Convention on Biological Diversity, a broad range of conventions and other instruments adopted by the International Maritime Organization, the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and its 1996 Protocol, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Stockholm Convention on Persistent Organic Pollutants, and the Ramsar Convention on Wetlands of International Importance. Relevant non-binding instruments include the Declaration of Principles and Agenda 21 adopted by the 1992 UN

Conference on Environment and Development in Rio de Janeiro, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, and the 2002 World Summit on Sustainable Development and its Johannesburg Plan of Implementation. Some regional conventions are also relevant, including the Convention on the Protection of the North-East Atlantic and the Convention on Future Multilateral Co-operation in the North East Atlantic Fisheries, both of which extend into the Arctic region.

In addition to this plethora of international agreements, several Arctic-specific fora have been established outside of the Arctic Council. For example, the Arctic Five — while not a formal body — concluded the Agreement on the Conservation of Polar Bears in 1973, and signed a Declaration to Prevent Unregulated Fishing in the Central Arctic Ocean in 2015. The UNCLOS provisions concerning extended continental shelf[3] also especially concern the Arctic Five and they have agreed to the peaceful resolution of overlapping claims there as well, with the 2008 Ilulissat Declaration.

Also, the Arctic Economic Council was established at the behest of the Arctic Council, however it is very deliberately an independent body with its own governing body, secretariat and mandate of facilitating Arctic business-to-business activities and responsible economic development.

And while it is true that the Arctic Council does not discuss military security, the Arctic states have met on those issues *outside* of the parameters of the Council. Two meetings of the Arctic chiefs of defence staff were held before Russia's intervention into Crimea abandoned them; however an Arctic Coast Guard Forum involving all eight Arctic states was established in October 2015, despite those broader geopolitical tensions.

A Web, Not a Pyramid

Articulating the Arctic Council's limitations in regional governance is not the same as arguing that it is weak or insignificant. The Arctic Council has been critical in developing norms around regional peace and stability, fostering cooperation on establishing environmental regulations, and privileging the perspectives of local inhabitants, especially indigenous peoples. It has also led ground-breaking research on the Arctic environment, which continues to inform policy options of the Arctic states, collectively and individually. But it is important to understand what the Arctic Council can and cannot do in order to identify what governance needs should be filled by other players. And it is critical not to proscribe alternate fora seeking to deal with issues for which the Arctic Council is either not equipped or not mandated to address.

Arctic regional governance is best viewed as a web with the Arctic Council in the middle, not a pyramid with the Arctic Council at the top. One of the most virtuous characteristics of Arctic politics has been the way in which cooperation is privileged and sought. It would

3 According to the UN Division for Ocean Affairs and the Law of the Sea, the continental shelf of a coastal State "comprises the submerged prolongation of the land territory of the coastal State — the seabed and subsoil of the submarine areas that extend beyond its territorial sea to the outer edge of the continental margin, or to a distance of 200 nautical miles where the outer edge of the continental margin does not extend up to that distance."

be regrettable if the multitude of organizations and fora that are also concerned with Arctic governance were perceived as being in competition with one another, rather than pieces of the same puzzle working toward commonly held goals.

To that end, as Canadian policy makers prepare for the next phase of regional Arctic cooperation, it will be important to recognize and accept the Arctic Council's limitations and seek to address the gaps through other fora. Environmental and ocean issues, which are inherently transboundary, will continue to be best managed at a regional level with broader international engagement. However, development issues and solutions, particularly with regards to infrastructure, transportation, large-scale resource exploitation, telecommunications, and Arctic-focused research, will benefit from increasing subnational leadership and involvement. This level of governance is absent from many Arctic Council activities and should be promoted.

Other existing fora, such as the Arctic Five, the Arctic Coast Guard Forum, the Arctic Economic Council, and influential conferences such as the Arctic Circle and Arctic Frontiers, should continue to be embraced and developed. Canada should continue to reject claims that these fora are inherently competitive and ensure that communications between such groups are strong and that their activities do not overlap unnecessarily.

There is plenty of work in the Arctic to go around. The Arctic Council is, as it is often described, pre-eminent in the region, but there is no advantage to designating it as peerless.

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8

Vachon River, Nunavik, Quebec

Quebec as an International Actor in the Arctic

Intersecting Federal and Provincial Northern Policies

Joël Plouffe

Literature on Arctic politics has proliferated over the past few years, providing a vast array of analysis on national Arctic strategies, on state-centric interests in the region and on international relations between sovereign states and/or organizations of states within and beyond the web of Arctic governance. Yet less attention has been paid to subnational governments in the North who are, at varying degrees, expanding their international linkages as a way to further their own development strategies in a changing Arctic.

Quebec's interest in the North offers a good example of how subnational governments in the Canadian context are expanding their policy agendas to tackle emerging challenges in the region, but also expectantly aiming to capitalize on new global investments for northern ventures. Furthermore, a closer look at Quebec's paradiplomatic activity also reveals how subnational Arctic policy goals are intertwined and supportive of Canada's Arctic policy in general: both federal and subnational governments jointly assume the shared responsibility of planning and advancing future development opportunities for Northerners.

To that end, exploring the idea of a formal bilateral and/or multilateral dialogue between Ottawa and Canadian subnational governments on Arctic policy making and implementation is a topic that warrants serious consideration today. Moreover, a discussion on the relationship between multiple levels of government on Canada's role in the circumpolar world is timely, necessary and could potentially lead to new policy ideas and implementation strategies for all governments involved.

Quebec Goes North

Quebec's paradiplomacy in North America and the world is nothing new. Since the mid-1960s, the province has been one of the most engaged federated states pursuing its internal areas of competencies outside its borders. As often remarked, Quebec is "probably the most advanced case of international involvement for a non-sovereign state" (Balthazar 1999). Through its *politique internationale*, the province has traditionally taken responsibility "for the international extension of its domestic areas of jurisdiction" (Cyr 2009, 20), while cooperating with Ottawa when competencies and/or interests overlap. Yet the Arctic as an area of interest and influence has remained off Quebec's radar until recently.

L'Effet Plan Nord

Despite its recent arrival on the scene, Quebec can arguably be considered as one of Canada's most active subnational governments pursuing its policy interests in the global Arctic arena.[1] Geographically, politically and culturally, Quebec identifies itself as a northern place and an actor with a significant part of its territory, Nunavik, lying inside the Arctic region as defined by various working groups of the Arctic Council (i.e., Protection of the Arctic Marine Environment), as well as the Arctic Human Development Report.[2]

Quebec's "coming of age" on Arctic politics first emerged through Premier Jean Charest's Plan Nord in 2011. The initial policy document was a 25-year Northern development strategy (i.e., CDN$80 billion in investments) that sought "to harness the economic potential of the region, improving accessibility through transportation and communications, protecting the environment, and presenting a financial framework for investment" (Brown and Lamontagne 2012).

Meanwhile, Plan Nord began to exert influence on Quebec's international policy. In 2010, Quebec joined the Northern Forum, an international organization of subnational and regional governments that have particular northern qualities that distinguish them from other regions of the globe (i.e., cultural, economic, climatic traits). It is in principle considered as an institution that serves purposes that are complementary to those of the Arctic Council, focusing on challenges of northern life: social problems (alcoholism, suicide), acquiring technologies to enhance health and well-being of Northerners (telemedicine), the environment (water quality, bears, youth), sustainable development (rural development, permafrost, costs of living, energy) and the like.

But Quebec's involvement with the Northern Forum was short. In 2012, the Charest government chose to exit the Forum, rather turning its paradiplomatic attention away from the northern regions of Canada, Alaska and Russia, and toward those of the European Arctic.

1 Yukon and the Northwest Territories have also increased their paradiplomatic engagements with the state of Alaska through the Arctic Caucus of the Pacific NorthWest Economic Region. Inuit Nunangat, as a substate actor in the Arctic, also has a long history of cross-border circumpolar collaboration with Greenland and Alaska, as well as with various subnational actors across Russia's Arctic.

2 See Arctic Monitoring and Assessment Programme, "Definitions of the Arctic Region," www.amap.no/documents/doc/definitions-of-the-arctic-region/248.

Euro-Arctic Paradiplomacy

Quebec's paradiplomacy in the Arctic shifted toward Northern Europe in 2013 with a declaration of intent between the Government of Quebec and the Nordic Council of Ministers (Norden).[3] This cross-border and cross-regional initiative was established as a way to institutionalize bilateral Quebec-Norden policy learning on a diversity of issues such as the impact of climate change on Northerners, mining and other extractive activities in fragile milieus, sustainable development, renewable energy and energy supply for Arctic regions, transportation infrastructure and Arctic higher learning, research and innovation. The implementation process of the 2013 declaration of intent has led to various bilateral agreements.

In February 2015, Quebec and Norden jointly organized an international symposium on sustainable and northern development in Quebec City. During that symposium, the Quebec research council (Fonds de recherche du Québec – Société et Culture) and Norden research council (NordForsk), signed a memorandum of understanding aimed to enhance bilateral cooperation on scientific research. Moreover, in 2016, Norden and the Ministère des relations internationales du Québec et de la Francophonie (MRIF) created their first northern development internship for Québécois participants at the Secretariat of the Nordic Council of Ministers in Copenhagen and Oslo.

Additionally, after taking office in 2014, Premier Philippe Couillard expanded Jean Charest's initial Arctic paradiplomacy by building a bilateral relationship with Iceland through the Arctic Circle Assembly. The Arctic Circle is a global platform for different Arctic and non-Arctic actors seeking "to increase participation in Arctic dialogue and strengthen the international focus on the future of the Arctic."[4] At last year's Forum in Iceland, the premier was adamant on Quebec's role in the North by declaring that in a changing Arctic, "all governments can act" (Couillard 2015).

Since 2014, Premier Couillard has travelled to Iceland twice and used the Arctic Circle Assembly as an international policy venue to make multiple announcements and attract global attention toward the province's Arctic-related policy initiatives: the re-launch of Plan Nord; the creation of the Institut nordique du Québec (Northern Research Institute of Quebec); the International Symposium on Northern Sustainable Development; Quebec's involvement in the twenty-first Conference of Parties in Paris; and the first North American satellite forum of the Arctic Circle Assembly to be held in Quebec City in December 2016.

Quebec's paradiplomacy in the Arctic is nascent. Over the last years, both Liberal and Parti Québécois (PQ) governments have signified their interests in Arctic affairs.[5] Recently, the Couillard government has furthered Quebec's policy actions in the region while narrowing its paradiplomatic efforts on the Nordic countries. Indeed, although Quebec-Norden

3 Norden is a regional grouping of sovereign states — Denmark, Finland, Iceland, Norway, Sweden — and three substate actors — Faroe Islands, Greenland and Åland Islands. See Norden, www.norden.org/en.

4 See Article Circle Assembly, www.arcticcircle.org/about.

5 For example, in Pauline Marois's platform of the 2014 provincial elections, it was clearly indicated at priority #18 that an elected PQ government would seek to develop Quebec's first Arctic policy.

cooperation is reflective of a shared trans-Arctic agenda on sustainable development, the Couillard government's approach is thus far mainly focused on a region that has far less social, environmental, geographical and economic affinity with Northern Quebec then other areas of the circumpolar world. Therefore, Quebec's Arctic policy could eventually bring to Northerners some additional tangible benefits[6] from circumpolar cooperation if it were to broaden its regional scope through international linkages with states, subnational governments and/or organizations that are equally representative of Quebec's nordicity (e.g. economic development through tighter cross-Arctic opportunities and incentives; regional ventures through northern networks; circumpolar expertise sharing on common priorities related to health, infrastructure, education and related human capital development [Plouffe and Exner-Pirot 2015]).

In that sense, while Quebec positions itself in circumpolar affairs, perhaps a new form of Quebec-Ottawa collaboration could enhance both level of governments' common domestic-international interests in the Arctic and bring added value to regional governance in general.

Moving Forward Collaboratively

Canada's North and Arctic governance could both benefit from a refreshed Canadian Arctic strategy that places federal-subnational government collaboration as a pillar for its development and implementation. In Canada's federal system, where both Ottawa and subnational governments participate in national governance based on shared competencies and opportunities, policy harmonization (i.e., coordination, consensus building, complementarity and subsidiarity[7]) seeks to avoid reduplication of initiatives at both levels, strengthen joint domestic and international initiatives that require sizable financial resources and/or local expertise, and essentially provide tangible benefits for Canadians. This framework arguably applies to the intersection of provincial and federal policy making vis-à-vis Arctic affairs.

In the Canadian context, capitalizing reciprocally on federal diplomacy and subnational paradiplomacy on emerging domestic-international issues could ultimately bring added value to the overall process of the policy cycle: both levels of government would be called upon to work as allies on Arctic policy making and implementation, provide resources to advance common visions and, when necessary, plan future Arctic development. If successful, the collaboration could be a joint initiative that makes Canada's circumpolar activity more comprehensive, representative and dynamic.

Through international linkages, subnational governments have created new policy networks to advance their own agendas based on regional realities and interests. Where and when possible, they can work alongside central governments as a way to fulfill respective and shared policy objectives, as it is often the case with Ottawa-provincial relations in

6 See, for example, the case of Alaska, Yukon and Northwest Territories subnational/cross-border cooperation in the Pacific NorthWest Economic Region (PNWER) through PNWER's Arctic Caucus, www.pnwer.org/uploads/2/3/2/9/23295822/pnwer_arcticcaucus_broch_withphotos.pdf.

7 See Parliament of Canada (1997, Chapter 10).

other geographical areas of the globe or international organizations. To that end, Arctic paradiplomacy is a problem-solving process that fosters policy learning between different circumpolar actors who share common concerns and jointly seek practical solutions for the resolve of very complex issues. As a policy instrument, it complements the sovereign states' international actions.

But working collaboratively has its benefits and challenges. On the one hand, enhanced cross-border networking at the subnational level in the Arctic complements larger policy purposes at the central government level where shared problems and interests largely converge. Because paradiplomatic activity often parallels the domestic-international objectives of the sovereign state, coordination and coherence at both levels of policy making makes sense and should be pursued.

What appears to be more challenging, though, is the design and operationalization of the collaboration framework. A first step would be to mutually recognize that a new approach to Canadian Arctic policy making — that is representative of Northerners, Canada's vast Arctic geography and pressing issues, as well as subnational governments' competencies — should be based on a greater role played by provinces, territories and indigenous organizations in the federal foreign policy cycle and implementation process. All actors involved and ready to contribute would first need to convene and identify particular interests and responsibilities through a decentralized Canadian Arctic strategy. The process could bring regional input to the federal policy-making process, consequently bringing enhanced coherence to Canada's Arctic strategy. The policy would therefore benefit from local-regional engagement and a diversity of ideas and *ideals* reflective of the political, economic and environmental landscape, and needs of every part of Canada's Arctic.

Two main long-term advantages come to mind. First, making sure concrete benefits from Arctic cooperation are felt in different regions of Canada. Second, collectively representing Canada's nordicity through a revamped strategy that engages Ottawa and subnational governments in the circumpolar North. This would make sure that the northern dimension to Canada's foreign policy reflects the interests of the diverse yet comparable northern regions and peoples of the country. Therefore working collaboratively on Arctic policy could represent an innovative way to efficiently tackle the challenges and opportunities awaiting Northerners and Canada in the years to come.

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Ice fishing in Kangiqsujuaq (also known as Wakeham Bay), Nunavik, Quebec

9

Sun over Inuvik, Northwest Territories

The Need for an Umbrella Approach to Inuit Relations and Northern Governance

Heather E. McGregor

An Interview with Duane Smith, Former President, Inuit Circumpolar Council Canada, Current Chair and CEO, Inuvialuit Regional Corporation

Duane Ningaqsiq Smith

Duane Ningaqsiq Smith is the chairperson and chief executive officer of Inuvialuit Regional Corporation (IRC). Previous to his election as chair of IRC, Duane was president of Inuit Circumpolar Council (ICC) Canada since June 2002. As president of ICC Canada, Duane also became vice-president of Inuit Tapiriit Kanatami. He resigned as ICC Canada president when he was elected as IRC chair and CEO in January 2016. He is a member and co-chair to the board of directors of ArcticNet.

Born and raised in Inuvik, Northwest Territories, Duane Ningaqsiq Smith served as president of the Inuit Circumpolar Council (ICC) for close to 15 years. He resigned this post early in 2016 to assume the role of chairperson and chief executive officer of Inuvialuit Regional Corporation. As the ICC President, Duane has been a prominent international figure engaged in shaping Arctic policies. In his interview with Heather E. McGregor, Duane draws on his wealth of experience to share his vision and ideas about the future of Arctic policy.

Heather: CIGI held a round table on revitalizing Arctic policy shortly after the change in Canadian government — from 10 years of Conservative leadership to the new Liberal government. We are interested in hearing from the Inuit Circumpolar Council (ICC) Canada's perspective, and from your perspective, what priorities would you be looking for the Trudeau government to highlight?

Duane: One of the more crucial things is for them to work closely with the Inuit land claims organizations to develop a common approach with them for implementing the land claims. If they were to develop an umbrella approach, it would address so many of the other issues at the same time because the land claims organizations cover pretty well everything in the Arctic. More specifically: health issues, improving services to the people in the Arctic, and developing a strategy on improving graduation rates so that there's more success for Inuit, so that they can be more self-sufficient.

Heather: How much do you think domestic politics in Canada affects the ability of Inuit to mobilize around their interests at the circumpolar level?

Duane: It does to some degree. More effort needs to be put in from the government to be more proactive and prepared for the activity that is already taking place in the Arctic. The changing climate is making it much more accessible, such as through tourism, commercial shipping of freight, tankers, produce, potential exploration in minerals, and oil and gas activities. I think there needs to be a better strategy by the Canadian government, alongside the land claims organizations, to have something commonly developed, so that both governments and Inuit representative organizations are more prepared. Being proactive and getting some understandings out there, so that any organizations or industries operating in the Canadian Arctic know what the rules of the game are before they start.

Heather: What is Canada's reputation right now, among circumpolar peoples?

Duane: Well, if we're just looking at it from a circumpolar perspective, I think Canada is looked upon positively, because of the issues that they deal with at the Arctic Council level. But I think there's so much more potential — and hopefully this new Canadian government looks at it as an opportunity to enhance some of their activities. When I was with ICC Canada, we were continuously trying to get support not only from the Canadian government, but from other Arctic states, to work with us more closely on social issues; research activities to document and address health issues of Arctic peoples; food security; climate change; depleting populations of different species; and invasive species. Our caribou population is crashing, how is that affecting the health of the Inuit? Is it putting pressures on other species because they have to harvest something else for their nutritional needs? The cost of living is so high, so people have to harvest in order to subsidize their foods. We need to get an understanding of exactly what is harvested, how much is harvested, when and where, so that we can ensure it is done in a sustainable manner. But we were unable to secure sustainable funding for these projects from Canada and the other Arctic states.

Heather: Is there an example of an initiative by ICC Canada, or within the circumpolar region, that has been successful, and can serve as example of something that needs more support, or shows what is possible?

Duane: ICC Canada, under the Arctic Council Sustainable Development Working Group, led a project to document Inuit observations regarding how the changing climate is affecting their well-being, and the ecosystems around them. We completed that with the support of the Canadian government in the past, within the four Canadian Inuit regions. Then we received support from Canada and the US to do that in the other Inuit regions — Alaska, Greenland and Chukotka. We would have liked to continue the project, to make it more encompassing to all regions.

Heather: What do you think are the most significant barriers in facilitating this kind of circumpolar collaboration?

Duane: The most significant barrier is the lack of support from the Arctic states, including Canada. We are going to have to wait to see what the mandate of this new government is going to be. Hopefully they will continue to promote more collaborative ways with indigenous[1] peoples in Canada. Thus far, a renewed effort remains to be seen.

1 Heather E. McGregor views "indigenous" as an identity marker that warrants capitalization and regularly capitalizes it in her work, whereas CIGI's style guide does not allow for capitalization of the term.

Heather: At the CIGI round table on Arctic policy, many people in attendance — including researchers and federal public servants — were talking about how aware they are of the importance of having Inuit and Northern people involved in policy development and implementation — and yet, how stretched the Inuit organizations are. They are struggling to keep up with so many demands, so many meetings, and so many partners. From your perspective, are the Inuit organizations well supported?

Duane: No, not at all. I've been lobbying for four years under the previous government to try and increase the funding not only to us, but the other Canadian indigenous groups as well. The funding still remains the same today. It's primarily funding to go to Arctic Council meetings, and that's about it. There's no real funding for capacity, research or preparation. It has been frustrating. We need the funding to have the capacity to prepare, take part in, and possibly lead projects that would benefit all permanent participants, like we have in the past.

Heather: Based on your many years with ICC Canada, what role do you think the Arctic Council should play moving forward?

Duane: The Arctic Council can conduct research activities in a variety of areas. There should be an obligation of the Arctic states to review their policies based on the results of the research. Some of the working groups produce a report and that's the end of it. You don't see any follow-up based on the recommendations that come out of these reports. There's no accountability on those matters. There should be a process to follow up on these things and an obligation to report back on what the Arctic states may be doing, or may not be doing, in regards to recommendations.

Heather: Do you think the Arctic Economic Council — the primary forum between the Arctic Council and the circumpolar business community — will have any constructive impact for Inuit?

Duane: That remains to be seen. It is nice to see the level of interest from the private sector. Some have deep pockets, but there still needs to be infrastructure put into the Arctic. Within Canada, they can't invest without working with land claims organizations, because these organizations have rights within their respective regions regarding development activities.

Heather: How do you see the prospects for ongoing circumpolar collaboration, based on how things are going with Russia right now?

Duane: It seems like the Arctic Council has been able to continue to operate collaboratively and cooperatively with all Arctic states, including Russia. Any trouble that has been going on in other parts of the world has not had too much of an effect. The Arctic Council wants to continue to work in a positive, proactive manner.

Heather: Is there any other issue that you want to bring to the attention of our readers?

Duane: Yes. I think that all the departments that have responsibilities in the Canadian Arctic should sit down as one group with the Inuit organizations and try to develop a common approach going forward. The government has Canada's Northern Policy but nobody really knows how to go about implementing it because each department does their own thing. It doesn't seem like there's one common strategy. They should work with us on developing an umbrella approach, so we have a clear agenda, and can try to work toward a common objective.

10

Herschel Island in the Beaufort Sea, Yukon

Building Northern Canada-United States Bilateral Relations

The Beaufort Sea and the Alaska-Yukon Boundary

Heather Nicol

Introduction

Since the incorporation of sustainable economic development as one of the Arctic Council's comprehensive goals, much attention has been given to new multilateral efforts to improve the quality of life and development opportunities of circumpolar peoples and economies. Melting ice and the potential for increased access to the region's land and sea resources has put both sustainable development and environmental protection at the top of the agenda for the region's governments, policy makers and non-state actors. Multilateral agreements are important in engaging global response to the problems and potentials created by climate change, but so are bilateral arrangements, which are sometimes more enduring. For example, the Agreement on Arctic Cooperation, a bilateral agreement signed by Canada and the United States in 1988, diffused a potentially disruptive difference in national perspectives concerning the Northwest Passage (NWP). The agreement, which remains in force today, was built upon a history of bilateral cooperation in the Arctic between Canada and the United States that predated the Cold War. Much needed infrastructure in the form of roads, highways, defence and radar were co-developed in the Canadian and American North in the 1940s and 1950s, as were meteorological and communication stations, necessary for military and scientific purposes. Since then, cooperative efforts in the North American Aerospace Defence

Command and joint Arctic surveys of the continental shelf have been undertaken, while nearly two dozen other bilateral agreements have been negotiated — most in the area of defence, security and environmental cooperation and protection. Few bilateral initiatives are directed specifically to the management of the Canada-United States borderlands or the coastal waters of the Beaufort Sea.

Unlike the situation in the European North — where both the general framework of the European Union and the regional Barents Sea framework have fostered a high degree of connectivity among economic and political decision-making communities — North America has little in the way of comprehensive regional economic cooperation in the North beyond the general principles of the North American Free Trade Agreement. Yet we know that if predictions about greater accessibility to regional resources are accurate, these areas of the Arctic will become important sites for the management of east-west transit and cross-border activity facilitated by increased levels of economic development. What is also needed, it would seem, is a concerted bilateral effort to create regionally integrated economic and environmental cooperation across the Canada-United States land and maritime boundaries in the western Arctic.

This is easier said than done, particularly in the context of current models of cross-border cooperation. Canada-United States border management policies are tailored to places of high volume cross-border mobility and risk vulnerability. Here multi-agency models for cross-border control have been developed by a number of bilateral and trilateral agreements among Canada, the United States and Mexico, and are attuned to managing the problems of the world's most heavily trafficked border crossings. Such models enforce clear and established divisions between national populations and territories. They are supported by well-defined cultural, political and economic infrastructures and are geared to current securitization discourses concerned with criminality, trafficking and terrorism. But the spectrum of management and risk scenarios unique to more remote border regions in North America — for example the Yukon-Alaska and Alaska-British Columbia borderlands and the contested maritime spaces of the Arctic Ocean — are rarely considered in these national security narratives. Heavily resourced and focused on balancing larger economic and security considerations, these existing management models fail to encourage development of cross-border solutions to the intractable regional problems of development and sustainability in Canada's North.

A case in point is the Yukon-Alaska borderland. Territorial governmental agencies, First Nations and border experts in the Yukon Territory indicate that this cross-border region, and maintaining good cross-border relations in general, is of great importance to local and territorial economies because the Yukon is effectively landlocked and all exports of resources must cross the lands border. There is particular concern on the Canadian side of the border, especially among territorial governments, about the deleterious effect of potential bottlenecks and closures or reduced border-crossing opportunities in transporting the region's natural resources across borders on highways that are destined for American ports. The reality for Yukon is that its southern economy is effectively landlocked, and relies primarily on crossing the Yukon-Alaska border to ship primary products from resource extraction industries to ports destined for American and international markets.

This problem of access is a significant impediment for a territory such as Yukon, where the value of goods to the economy is realized only once these have been exported to extra-regional or foreign destinations. Local residents in bordering cities and towns also have considerable investment in cross-border mobility, from the ownership of economic, recreational and personal assets on the American side. Indigenous peoples living along both sides of the land border are connected by family and economic ties, as well as a long history of shared traditional territory, and yet find themselves the subjects of an increasingly onerous border management regime. Similarly, water quality relies upon cooperation among all communities situated along the Yukon River watershed, as the model framework developed by the Yukon River Inter-Tribal Watershed Council demonstrates only too well. Elsewhere in the borderlands conditions are similar. Communities are remote and widely spaced. Infrastructure is poorly developed and in need of repair, while the changes brought by a warming climate have had disastrous effects on local buildings and roads. In short, for those in Yukon, the current and future development of the region depends upon the functioning of border management in ways which perpetuate the maintenance of a smooth border, shared infrastructure and common solutions to economic growth.

But while there is a clear need for greater development in the area of cross-border national and subnational collaboration in the North American Arctic, the question of *how* is complicated. This is a region of land and sea, nested within seamless ecosystems and interdependent regional economies. Many communities continue to practise age-old patterns of subsistence across putative borders and boundary lines, while global investors treat the region as a seamless reservoir of energy and mineral resources — and neither is well served by the existing transportation infrastructure, which will, as climate change proceeds, only become more difficult and expensive.

The jurisdictional responsibility for cross-border management is made all the more complicated by the fact that the status of the Beaufort Sea border is, as yet, undefined. Moreover, Yukon has very little Beaufort coastline, the lion's share instead lying off the coast of the Northwest Territories (NWT) and Inuvialuit. Not only does this make the Yukon Territory effectively landlocked, but it means that any consideration of managing frameworks for northern cross-border connectivity must also include both the NWT and the Inuvialuit Land Claims Agreement if effective policy making is to develop. The question is how to establish such a bilateral mechanism and what model to use? This, as it turns out, is a perennial question.

Regional Cooperation Initiatives

This complex landscape of regional, bilateral and international agency and interest raises the question of what would be the best model for a Beaufort Sea arrangement — particularly one which broadens an existing concern for maritime environmental protection to include regional development incentives. The Regional Seas movement now entering the forum of discussion among Arctic Council nations, for example, is a good model, but if pursued under the United Nations Environment Programme, would not address issues unique to the Canada-United States borderlands within the Beaufort Sea and western Arctic region which we have identified above. What would work? As early as 1986 the United

States-Canada Arctic Policy Forum concluded that there were four areas where common policy-making challenges occurred in the Canadian Arctic, one of the most important being the need to develop a common American and Canadian regional authority in the Beaufort Sea. The Forum concluded that there was a real need for a United States-Canada regional authority in the Beaufort Sea in order to manage a variety of interests, including indigenous versus non-indigenous, regional vs. central, public vs. private, and oil development vs. subsistence, and commercial fishing and hunting interests. To this, we might add, international security vs. ease of mobility and connectivity in shipping and transportation structure.[1]

The Forum had in mind a model which, to some degree, has been superseded by much of the Arctic Council environmental agreements and North American security arrangements. Still, the idea of a bilateral Beaufort Sea cooperation still retains its saliency, particularly in the face of the challenges which continue to face the region: disputed maritime boundaries, sensitive ecologies, the need for common fisheries policies, infrastructure and search and rescue deficits, and potential oil and gas exploration and drilling. Like the NWP, there is potential for this area to see heavy maritime traffic in the future. There has been a doubling of vessel traffic in the Arctic since 2005, and much of this is directed through the Beaufort Sea.

Nonetheless, there are significant prototypes forming. One is the Canada-specific Beaufort Sea Partnership (BSP) for which the Department of Fisheries and Oceans is the lead agency. The BSP is a partnership among 54 organizations that have an interest in the Beaufort Sea Large Ocean Management Area (LOMA), including indigenous, territorial and federal government departments, management bodies, northern coastal community residents with interests in the Beaufort Sea, industry stakeholders, non-governmental organizations (NGOs), academics, and others with interests in the Partnership's LOMA and other initiatives.[2] Also nested within the Beaufort Sea Partnership are a number of marine protected areas and a regional governance structure which effectively includes the spectrum of regional maritime stakeholders.

Although an effective environmental framework, the BSP remains a specifically targeted coastal and maritime-oriented environmental cooperation whose connectivity with regional communities and partners is relatively limited. Mindful of this limitation, the Pacific NorthWest Economic Region (PNWER) — an influential regional NGO with considerable traction within Alaska, Yukon, and the NWT — has established the Arctic Caucus to encourage the problem of building a new cross-border cooperation. The Caucus, which includes governmental, private sector, indigenous organizations, and NGOs, has effectively mapped out a broad bilateral borderlands region for cooperation that includes the waters of the Beaufort Sea. Pilot projects between PNWER, the Arctic Institute and the Arctic Caucus have already indicated that a borderland cooperation must facilitate cross-jurisdictional, binational, and multi-sector planning, including project binational scoping meetings of federal, state, territories, and provincial and private sector industry representatives. Their goal is to develop a regional stakeholder agreement for the structure

1 See http://arctic.journalhosting.ucalgary.ca/arctic/index.php/arctic/article/ view/2098.

2 Ibid.

of what will be an ongoing planning council cooperation. Indeed, PNWER has proposed that this take the form of a Beaufort Regional Council, based upon the existing Barents Sea Council in Northern Europe. The Barents Sea Council is a distributed decision-making organization signed by 13 countries as well as non-state and sub-state actors — including indigenous peoples' organizations. Its goal is to support regional and economic development of the Barents Region. The model, if applied in North America, would, as it does in Northern Europe, give voice to the multitude of stakeholders in the coastal areas of the Beaufort Sea, and localize the larger process of economic development within a specific regional decision-making process.

Moving Forward

Since the mid-1980s, if not earlier, we have seen recognition that Canada and the United States would be well served to build upon regional cooperation in the coastal waters of the Beaufort Sea. Since that time the landscape of regional, bilateral and international cooperation in the North American Arctic has become more complex. The Arctic Policy Forum might have envisioned an agreement signed with flourish between two nations and two heads of state, but today's agreement will involve a spectrum of regional stakeholders and rightsholders, including regional communities, tourist operators, national parks management, transboundary transport agencies, mining companies and resource investors, indigenous groups, land developers and those whose job it is to ensure water and environmental quality within the bridging of two national frameworks.

So, a robust bilateralism supported by a multitude of agencies, and involving both land and sea planning and management mechanisms, will clearly be necessary if communities in the western Arctic are to benefit from the new era of international economic interest in the region. Indeed, there is a growing appetite to see coordination of environmental and economic interests across borders — as the recent cooperation agreement on mines in cross-border watersheds signed between Alaska and British Columbia in November 2015 has indicated. To date, however, no federal or territorial agency has stepped forward to lead or to provide funding for a regional cooperation, raising that same question of what would be the best model for a Beaufort Sea arrangement and which agency would take the lead in negotiating this cooperative mechanism, although there are existing prototypes that are promising (such as the Department of Fisheries and Barents Sea Partnership or the established European model derived from the Barents Sea Council).

For this reason the ball would seem to be not just in the court of both Canadian and American federal governments — to provide leadership and funding for a regional agreement building upon the Barents Council architecture — but also in the court of NGOs (such as PNWER and its Arctic Caucus), private sector partners and existing regional institutions (such as the Beaufort Sea Partnership), to continue to build cooperation among regional actors and institutions and to bring increasing pressure to bear upon federal authorities. To these ends, Canada's government would be well advised to support PNWR's Arctic Caucus; widen and deepen the Beaufort Sea Partnership; and support regional initiatives that develop capacity for bilateral economic, as well as environmental, integration within the broader Beaufort Sea region. It should also prioritize and fund the development of a Beaufort Sea

Council or similar cooperative mechanism, with the aim of undertaking this initiative in tandem with the resolution of Beaufort Sea boundary disputes. In doing so, all levels of government should better resource the development of general frameworks for enhancing accessible land and water borders throughout the Beaufort region and continue to identify and explore the application of bilateral solutions to regional economic and environmental challenges. Furthermore, in the absence of meaningful bilateral negotiations, the Canadian and American governments would be well advised to create a joint management area in the disputed Beaufort triangle. This would encourage harmonized development in the many areas.

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The Alaska Highway in Yukon Territory, near the Slims River Delta

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Gate to the Northwest Passage by sculptor Alan Chung Hung, in Vancouver's Vanier Park

Negotiate the Northwest Passage, Before It's Too Late

Updating the 1988 Arctic Cooperation Agreement

Michael Byers

If Vladimir Putin wanted to cause Justin Trudeau and Barack Obama some grief, he would order a Tupolev Tu-95 "Bear" bomber to fly through the Northwest Passage (NWP). In one fell stroke, the Russian president would drive a wedge between Canada and the United States.

The reason being is that the United States considers the NWP to be an "international strait" through which ships from all countries have a right of uninterrupted "transit passage." While this right does not affect ownership of the waterway, it would prevent Ottawa from controlling who enters it.

Conversely, Canada claims the NWP constitutes "internal waters." This designation would bar ships from entering the waterway without express consent and require vessels to comply with Canadian customs, immigration, criminal and environmental laws.

Although the dispute has always focused on ships, it also concerns aircraft. Military planes from any country may fly through an international strait unless they linger or show hostile intent.

If Putin sent a Bear bomber into the NWP, he would force Obama to make a choice: support Russia's right to do so, consistent with the United States' international strait claim, or oppose the flight and undermine the US position on the matter. Trudeau would be forced to make an equally difficult choice between allowing the Russian plane through, or using force to stop it.

An internal waters claim is undermined by usage that lacks consent, which is why Canada granted permission to US ships that sailed through the NWP in 1969 and 1985 — even though the ships had not requested permission. But while Canada has always been careful to avoid any escalation of its dispute with the United States, one can hardly imagine it providing unsolicited permission to a Russian bomber.

If necessary, Canada could issue a diplomatic protest. In international law, a protest is usually sufficient to prevent another country's action from undermining sovereign rights. But since a Russian bomber flying through the NWP would constitute a highly visible challenge to Canada's legal position, a protest might not suffice where it really matters — in the harsh world of global politics. Seen through the flinty eyes of China, India and the European Union, it could take more than a protest to defend Canada's claim.

Forcing a plane to turn round or land is not a realistic option in these circumstances. Russia would regard any use of force as an armed attack, and because of the Canada-US dispute over the passage, it would actually have a legal leg to stand on. Any forceful action by Canada would also displease the United States, and not just because of the international strait claim. Washington is engaged in high-level diplomacy with Russia on a number of sensitive non-Arctic issues, including Ukraine, Iran and the Islamic State.

Putin, of course, would weigh the risk of invoking a forceful Canadian response. He is playing chess in his standoff with the North Atlantic Treaty Organization (NATO) states, not Russian roulette. This explains why Bear bombers have only approached, but not yet entered, Canadian airspace.

The Russian president will also consider the fact that his country has its own internal waters claim — in the straits along its northern coastline — that could be affected by such an act. The United States also contends that these channels constitute international straits. However, the Russian legal position is more secure than the Canadian one. No foreign ships or aircraft have ever entered Russia's Arctic straits without seeking and receiving permission. When a US icebreaker sailed toward the Vil'kitskii Strait in 1965, Moscow threatened to "go all the way" in response — and the icebreaker turned around.[1]

Of course, Putin might never send a Bear bomber through the NWP. But NATO tensions with Russia provide a new reason to resolve the legal dispute between Canada and the United States.

In the past, the two countries have engaged in diplomacy on the NWP when it has been necessary to do so. In 1988, Brian Mulroney, then prime minister of Canada, resolved the sovereignty challenge posed by a US Coast Guard icebreaker entering the waterway without requesting Canada's permission. He persuaded Ronald Reagan that all US Coast Guard icebreakers should seek Canada's consent before using the NWP, by pledging that consent would always be granted. The resulting Arctic Cooperation Agreement would have resolved the matter, for all practical purposes, if not for the dramatic melting of sea ice now occurring.[2]

1 Cited in Franckx (1993, 148).

2 For the agreement between the Government of Canada and the Government of the United States of America on Arctic cooperation, Canada Treaty Series 1988, no. 29, see www.lexum.com/ca_us/en/cts.1988.29.en.html.

Climate change is causing the NWP to become seasonally ice-free, attracting private, non-icebreaking vessels — including small yachts, cruise ships and large bulk carriers — from Canada and other countries. This increased shipping necessitates improvements in policing, search and rescue, oil spill response and other basic services that only Canada, as the coastal state on both sides of the waterway, is operationally positioned to provide. However, Canada's incentive to make these investments is reduced, so long as its jurisdiction to regulate shipping is contested by the world's most powerful country.

At the same time, US security concerns have changed in recent decades. In 2005, then US Ambassador Paul Cellucci revealed that he had asked the State Department to re-examine the US position on the NWP in light of the threat from global terrorism. Cellucci's concern was that terrorists might take advantage of ice-free conditions to transport weapons of mass destruction or enter North America. He went so far as to suggest publicly that Canada's legal position might now benefit the United States.

The United States has also realized that it is a so-called "strait state" both in the Bering Strait, between Alaska and the Russian Far East, and in Unimak Pass, a narrow gap in the Aleutian Islands through which more than 5,000 cargo ships pass each year on the Great Circle Route between North America and Asia. This realization should make the United States more sympathetic to Canada's security, environmental and jurisdictional concerns in the NWP.

Canada and the United States could, potentially, partner in a global diplomatic campaign to strengthen the rights of coastal states in international straits under the Law of the Sea. Such a campaign would seek to rebalance the interests of coastal and shipping states in light of newly heightened, widely shared concerns about oil spills, terrorism and illegal immigration.

A simpler, more easily achievable solution would be an updated Arctic Cooperation Agreement that both recognizes Canada's internal waters claim and ensures freedom of navigation for US government ships and reputable shipping companies. But to achieve such an agreement, Canada would have to address two fundamental US concerns.

The first concern is that any compromise on the NWP might create a precedent for other waterways, for example, the Strait of Hormuz, where oil tankers exit the Persian Gulf and freedom of navigation is contested by Iran. However, it would be easy for lawyers to distinguish the NWP from these other waterways, on the basis of its considerable length, the frequent presence of sea ice and the resulting near-absence of shipping — indeed, between 1906 and 2005, only 69 full voyages took place. The concern about a precedent could be alleviated further by Canada and the United States making clear that their new agreement — which would be a bilateral treaty, as in 1988 — takes the issue out of the realm of customary international law as between these two countries. This could be accomplished by language stating that the new agreement is "without prejudice" to the rights of third states or the legal status of other waterways.

The new agreement could then be multilateralized through the conclusion of similar agreements between Canada and other countries. This approach has already proven successful with the many nearly identical bilateral treaties concluded between the United States and Caribbean countries for drug interdictions at sea, and the similar bilateral treaties concluded

with "flag of convenience"[3] states under the US-led Proliferation Security Initiative. Such countries could usefully include Canada's other NATO partners as well as other allies of both Canada and the United States, such as South Korea, Japan and the two major shipping registries of Liberia and Panama. Obviously, US support for such an approach would be essential in bringing many countries on board.

Committing to freedom of navigation through the NWP for Canada's allies and responsible shipping companies would be consistent with long-standing Canadian policy. In 1969, then Prime Minister Pierre Trudeau declared that "to close off those waters and to deny passage to all foreign vessels in the name of Canadian sovereignty…would be as senseless as placing barriers across the entrances of Halifax and Vancouver harbours."[4] Securing US recognition for Canada's internal waters claim serves a very different purpose, namely providing regulatory and enforcement powers over irresponsible shipping companies and other potentially dangerous non-state actors.

The second fundamental US concern is that Canada, after having the internal waters claim recognized, might then fail to invest in the infrastructure, services and other capabilities needed to protect US security and economic interests there. These necessary investments include improved charts, navigation aids, ports of refuge, weather and ice forecasting, search and rescue, surveillance, and a credible security presence for deterring and dealing with pirates, terrorists, smugglers and illegal immigrants. Writing these kinds of investments into a new agreement will not be easy, but might be a necessary price for US support. At least some of the commitments could usefully be announced in advance of negotiations.

At the same time, achieving agreement on some cooperative measures might be relatively easy. In February 2008, Paul Cellucci (by this point no longer ambassador) and I led a model negotiation on northern shipping. The goal of the two-day exercise — conducted by two teams of non-government experts — was to identify possible solutions and make joint recommendations aimed at both the Canadian and US governments.

The teams agreed that the long history of Canada-US cooperation in the Arctic indicates the potential for a new bilateral agreement, as does the history of cooperation on shipping through other waters under national jurisdiction such as the St. Lawrence Seaway. We made nine concrete recommendations, including that the two countries collaborate on developing parallel rules and cooperative enforcement mechanisms for notification and interdiction in the waters north of Alaska and Canada, as well as on the establishment of shipping lanes, traffic management schemes and oil spill response plans.[5] We recommended that the two countries cooperate with respect to immigration and search and rescue concerns related to cruise ships, and accelerate the acquisition of new icebreakers and other capabilities in support of increased shipping. We also recommended that they make maximum use of their already considerable legal powers over vessels sailing to or from Canadian or American ports, or registered in either country, and that they establish a

3 Flags of convenience are countries that register foreign ships without imposing significant financial or regulatory requirements on them.

4 See Canada. *House of Commons Debates, 28th Parliament, 2nd Session, Vol. 1,* 24 October 1969, 39 (Prime Minister Trudeau).

5 See Model Negotiation on Northern Waters in Byers (2009, Annex II).

Canada-US Arctic navigation commission, following the model of the International Joint Commission, which has dealt with transboundary freshwater issues since 1909.

The point was not to solve the legal dispute during our model negotiation. We did not. But we did demonstrate that a great deal of progress can be made quickly and easily when Canada and the United States resume official negotiations on the NWP.

The current US government is willing to talk, as Ambassador David Jacobson made clear in a January 2010 cable released by WikiLeaks:

> At this juncture, for Canada to advance its "sovereignty" interests there is a need to focus on bilateral and multilateral partnerships with its Arctic neighbors. … Among the Arctic coastal states (and perhaps among all countries) Canada and the United States typically have the most closely aligned policy interests and generally share a common viewpoint on international law and common objectives in multilateral fora (such as the Arctic Council). From Canada's point of view, if the two countries can find bilateral common-ground on Arctic issues, the chance for Canadian success is much greater than going it alone against the interests of other countries or groups of countries. (Embassy of Ottawa 2010)

Opportunities for diplomatic agreement are rarely as evident as this. With the sea ice melting, foreign ships coming, and Russia up to mischief, it is time to resolve the NWP dispute.

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13

NORAD tracks Santa

North American Aerospace Defense Command and the Arctic

Beyond the Santa Tracker

Andrea Charron

References to the North American Aerospace Defense Command (NORAD) should inevitably surface when attention is focused on the Arctic. Surprisingly, the role of this binational agreement generally — and vis-à-vis the Arctic — is little understood, appreciated or analyzed of late. The lack of association between NORAD and the Arctic matters, especially for Canada, for three reasons. First, NORAD is the centrepiece of the Canada-US defence cooperation and yet it is out of the sight and minds of many defence and government officials on both sides of the border. Second, NORAD is wrongly assumed by the general public to have unlimited financial resources. And third, the lack of association between NORAD and the Arctic matters because the Arctic is an emerging region of global activity and NORAD is key to protecting the North American portion of it.

Out of Sight, Out of Mind

Since 1957, NORAD has monitored the air and, later, the aerospace territory of the American and Canadian Arctic, not to mention the rest of North America. Though aware of its famous Tracks Santa program,[1] many in the public and even the military failed to note the expansion of NORAD's mission suites, or operational mandates, beyond aerospace warning and control

1 See www.norad.mil/AboutNORAD/NORADTracksSanta.aspx.

to drug interdiction in the 1990s and maritime warning in 2006 when the Agreement[2] was signed in perpetuity. And certainly, few among the public and military know that NORAD relocated its Operations Center in Colorado from Cheyenne Mountain to nearby Peterson Air Force Base where it is now co-located with US Northern Command's (USNORTHCOM's) command centre in the newly named Eberhart-Findley Building (after the NORAD Commander during 9/11, General (Ret.) Ralph E. Eberhart, and Royal Canadian Air Force Lieutenant-General (Ret.) Eric Findley).[3] Even fewer could name Canada's NORAD Headquarters location (housed with 1 Canadian Air Division in Winnipeg Manitoba). On the one hand, the fact that NORAD had not been in the news until 9/11, despite all of these changes, is an indication that it operates rather seamlessly and effectively. On the other hand, given the importance of the missions to protect North America from air threats and to warn of maritime threats, it is surprising that NORAD is rarely referenced in government documents generally, or in reference to the Arctic specifically.

One of the key sources of information for NORAD concerning potential air threats in the Arctic is the North Warning System (NWS) — a series of 11 Long Range Radar sites and 36 Short Range Radar sites[4] that extend from Yukon to the coast of Labrador. Initially it was funded mainly by the United States but owned and serviced by Canada.[5] It is rapidly reaching its end-of-service life. The conditions of the Arctic are hard on metal, especially moving parts, and the radars need to be replaced or upgraded. Given this eventuality, thought must go into its location, function and form. For example, the radars are currently positioned deep into Canada's northern territory. Does the line need to move farther North? Given the enormous cost to replace or upgrade such a system, should it only detect airborne threats? Or should it be multi-functional and add capabilities to detect maritime-based and possibly other types of threats? Might other government departments, such as Environment Canada or the coast guard, benefit from additional information provided by a new NWS or its variant with enhanced capabilities? Should radars be abandoned for space-based systems, for example? And the most difficult of questions to answer: who will finance a new system? Will the United States contribute funding? And will the new project be another example of a disastrous procurement record, similar to other Canadian defence-related purchases?[6]

The Maritime Warning Mission (added in 2006) is the most recent for NORAD.[7] Given the current lack of infrastructure in Alaska and Canada's Arctic and the potential

2 On May 12, 1958, the agreement between the Canadian and United States governments that established NORAD was formalized. It was revised in 1968, 1973, 1975, 1980, 1981, 1986, 1991, 1996, 2000 and 2006 when it was signed in perpetuity.

3 No other US military combatant command headquarters includes a Canadian officer's name. Lieutenant-General Findley was deputy NORAD commander from July 2003 to August 2007. See Royal Canadian Air Force, "1 Canadian Air Division." www.rcaf-arc.forces.gc.ca/en/1-cdn-air-div/index.page.

4 The United States has radar sites in Alaska that they own, operate and service. For an excellent article on the evolution of NORAD, see Lawson and Sawler (2012).

5 Currently, Raytheon Canada has the maintenance contract. See www.raytheon.com/ourcompany/leadership/.

6 Referring to the lack of replacements for CF-18s and the shipbuilding procurement, which is currently over budget and time.

7 For more information on NORAD's Maritime Warning Mission, see Charron, Fergusson and Allarie (2015).

for increased vessel traffic, it is not clear if NORAD has enough access to information and intelligence to warn of new and emerging threats. While there are still relatively few ships transiting the Northwest Passage (NWP) (or the Arctic Ocean for that matter), changes in traffic and infrastructure are anticipated. Certainly, the Crystal Cruises voyage[8] in August-September 2016, the largest cruise ship yet to transit the NWP, will serve as an important test for a number of Canadian agencies.[9] There are few sensors in Canadian Arctic waterways, the NWS is not designed to track ships and the NWP has yet to be fully charted. What is more, the common operating picture for Canadian maritime territory is an amalgamated view of vessels of interest as provided by various Canadian government departments, none of which has direct links in the form of liaison officers either to NORAD or to the Canadian Joint Operations Command (CJOC)[10] — Canada's USNORTHCOM equivalent — except via Marine Security Operations Centres that were in project-status for over 12 years until this February 2016 when they acquired full operational capability.[11] On the United States' side, however, the US Coast Guard and sixty-odd other government departments are represented at USNORTHCOM, jointly co-located with NORAD. This means that while Canada depends on a whole-of-government approach to operate in the Arctic, individual departmental contact with NORAD is limited — mainly via working groups, high-level meetings or telephone notifications of maritime warnings or advisories by NORAD via a Canada-US Maritime Information Sharing Teleconference.

NORAD's Perceived Unlimited Financial Resources

NORAD has been a remarkably successful organization as has been measured by its ability to adapt. For nearly 60 years, NORAD has worked daily to protect North America from all manner of airborne threats, while its newer Maritime Warning Mission issues advisories and warnings. NORAD adjusts to changes in threats and security priorities. During the Cold War, as missiles replaced Soviet bombers, NORAD also shifted its focus. In the 1990s, with attention fixed on counter-drug operations, NORAD assisted law enforcement agencies with drug-trafficking surveillance. However, economic times have changed. Is NORAD still able to adapt to new conditions in the Arctic? The answer is mixed and Canada's relationship to its Arctic is one of the issues.

The Arctic is treated differently from the rest of Canada especially by successive Canadian governments. While the Great Lakes and land borders are patrolled jointly by United States and Canadian personnel, the Canadian Arctic remains a Canadian-only space, except during the odd exercise. Generally, any hint of potential or apparent US military cooperation or involvement in Canada's Arctic spurs calls of a breach of Canada's sovereignty. Given

8 See www.crystalcruises.com/ContentPage.aspx?ID=191.

9 For example, the Canadian Coast Guard is encouraging traffic in the Arctic to take preferred marine corridors — routes with key navigational information and response services such as hydrography, aids to navigation, etc.

10 While CJOC in Ottawa commands all maritime and land operations within Canada (and air operations outside of Canada), 1 Canadian Air Division (1 CAD) in Winnipeg commands all air responses within Canada. Therefore, unlike the USNORTHCOM, Canada has a bifurcated command arrangement, which works well but is not well understood, and means that the most common NORAD contact is via 1 CAD, not CJOC.

11 See Canadian Coast Guard (n.d.).

the vastness and limited size of Canada's military, Canadian Coast Guard and national police force, it is curious why the Arctic still remains immune from joint efforts. Certainly the same crises of sovereignty abuse do not plague the Royal Canadian Mounted Police's Shiprider program[12] and the fact that a US General is the Deputy Chief Joint Force Air Component Commander in Winnipeg gets nary a mention.

The other issue is that additional funding for the military from both sides of the border, given current fiscal realities and competing priorities, is not an option. Analysts generally talk about adding a magnitude of 10 to any cost estimates associated with the Arctic; everything must be either flown in or shipped, sparse population densities mean a general lack of civilian architecture on which to expand, and austere conditions put extra wear and tear on people and equipment. Whereas all of these challenges were considered a bulwark against foreign invasion, they are now an impediment to needed development.

Canada Needs NORAD

NORAD is a unique binational agreement that is vital to Canada for two reasons. The first is that NORAD is the only organization in the world with a mission to defend North America, not just the United States or Canada; and also, its co-location with USNORTHCOM is an intelligence, force and homeland security multiplier for Canada.

The Commander of NORAD is traditionally a US four-star General (or equivalent).[13] He or she therefore has a duty and responsibility to the highest levels of government on both sides of the border about threats not just to Canada or to the United States, but to North America.[14] No other individual has the same mandate, mission or authority. Nowhere is the value of NORAD more apparent than in the Arctic. Given the vast distances, enormous coastline and austere conditions, Canada alone could never afford the infrastructure NORAD provides, from the NWS (and its predecessors), and the agreements for assistance, to the potential, future missions assigned to NORAD, Canada has benefited from US assistance and vice versa.

An analysis of the threats facing Canada suggests that there are growing concerns that Russia's aggressive behaviour elsewhere in the world, China's interpretation of the Law of the Sea,[15] North Korea's attempts to expand its weapons of mass destruction program and serious concerns about the growing strength and reach of various terrorist groups means NORAD's operational tempo is likely to increase. Some of these threats are presumed likely to approach North America from the Arctic. Canada's potential participation in

12 This inspired program allows US and Canadian security officials to seamlessly patrol shared waterways. See Royal Canadian Mounted Police, www.rcmp-grc.gc.ca/en/news/2015/10/us-coast-guard-and-royal-canadian-mounted-police.

13 The deputy-commander of NORAD is always a Canadian. Likewise, the deputy chief joint force air component commander in Winnipeg is always an American general.

14 See NORAD, www.norad.mil/AboutNORAD.aspx.

15 For China's interpretation, see Beckman (2013).

Ballistic Missile Defence,[16] therefore, is a topic that may require revisiting. At the same time there are a growing number of constabulary issues that can become security threats that NORAD monitors as a function of its Maritime Warning Mission. NORAD's international area of operation and North American focus means threats can be tracked from further out, giving Canada more time to respond — a decided advantage for the Arctic given that the bulk of Canadian defence assets are located in the South. Even if the likelihood of these threats materializing in the near future is remote, many analysts suggest, NORAD has no choice but to prepare for any eventuality, given that they "Deter. Detect. Defend."[17]

Policy Implications

NORAD is an important binational agreement that is of enormous benefit to Canada. However, just because NORAD has been signed in perpetuity doesn't mean it cannot be marginalized in the future. This would be disastrous for Canada. The binational aspect of NORAD is significant and speaks to a key mandate of Minister Stéphane Dion: Canada-US relations.[18] Not contributing to NORAD sufficiently (for example, letting the NWS fail without a suitable replacement/reinvention of the system, or failing to replace the CF-18s) would render NORAD partially blind and could seriously undermine Canada-US relations. That being said, the extreme budget constraints faced by Canada means that very difficult decisions need to be made. Given that NORAD is vital to achieving Canada's first two defence priorities — defence of Canada and North America — NORAD must be near the front of the queue of important resources.

NORAD's name is no longer reflective of its mission suites[19] which may be a reason why NORAD is so misunderstood. Now is the time for Canada to suggest a name change to the "North American Defense Command," a name that keeps the trusted NORAD brand but drops the reference to aerospace.

Conclusion

NORAD's maritime warning role is of growing importance in the Arctic with projected shipping expected to increase but Canada's intelligence contribution via the Marine Security Operations Centres is still underappreciated. This needs to change. Likewise, implications for Canada should NORAD take on a maritime control mission (and perhaps others such as underwater infrastructure and cyber surveillance), need to be considered. While there was great resistance by both states to expand beyond maritime warning in the early 2000s,[20] it remains a possible next step. Now is the time to consider the pros and cons so that a proactive, rather than a reactive,

16 Canada's participation may or may not provide further protection to Canada than it currently has and the United States may no longer wish to invite Canada to join, especially if NORAD has little role to play. See Charron et al. (2014).

17 NORAD's motto.

18 See more at Prime Minister of Canada Justin Trudeau (2015).

19 Mission suites are the three required operational missions: maritime warning, aerospace warning and aerospace control. See www.norad.mil/AboutNORAD.aspx.

20 See Charron, Fergusson and Allarie (2015).

and considered decision is made. Finally, Canada needs to think seriously about its legacy of an implicit "no United States involvement" policy in the Arctic. It diverges from policies for the rest of Canada. Besides which, agreements, like the Agreement on Cooperation on Aeronautical and Marine Search and Rescue in the Arctic,[21] and/or a major marine disaster in the Arctic, render this "policy" mute.

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21 The Agreement was signed in Nuuk Greenland by the eight Arctic States negotiated under the auspices of the Arctic Council. It entered into force on January 19, 2013. See www.state.gov/documents/organization/205770.pdf.

Former Distant Early Warning Station, still remotely operated, Tuktoyaktuk, Northwest Territories

14

Canadian naval warship

NATO, NORAD and the Arctic

A Renewed Concern

Rob Huebert

Introduction

The election of a new government always creates the impression that all things are possible. The new government of Justin Trudeau — one that has distanced itself from both the practices and policies of the preceding Stephen Harper Conservative government — has not yet had the opportunity to expand on its vision for its Arctic policy. Given the focus on addressing the numerous issues concerning Canadian indigenous peoples, it is more than likely that the government will focus its attention on domestic issues rather than the international challenges facing the circumpolar region. Trudeau's government will probably want to avoid dealing with any issues that require it to continue the previous government's focus on military issues in the North. Unfortunately for them, they will need to address Arctic security issues that are connected to its security alliances — North Atlantic Treaty Organization (NATO) and North American Aerospace Defense Command (NORAD).

The geopolitical environment facing Canada is rapidly changing, which further complicates any Canadian actions in the Arctic. Russian actions in Ukraine, for example, have deteriorated relations with Canada in general. For many observers, this suggests that the Russian government has become more willing to use military force in order to alter the borders of its neighbours.[1] Furthermore, it is becoming clear that the Russian government is determined to substantially build up its military capabilities in its Arctic region.[2] At the same time, the

1 For more on these opinions, see Lucus (2014); Day (2015); and Hoyle (2013).

2 See Zysk (2015) and Roi (2010).

Chinese government has been dedicating significant resources to, and has been acting more aggressively within, its surrounding maritime region.[3] All of these new realities point to an increasingly complicated and possibly dangerous international security environment for Canada.

This new security environment greatly confounds Canadian policies in the Arctic. There are two core reasons why the government will need to address issues surrounding its NATO and NORAD alliances. First, both alliances are designed to keep the threats of enemies contained and away from Canada, and to keep its friends closer. Canada will be required to respond to an increasingly aggressive Russia, so it cannot lose sight of the fact that it continues to have to deal with the United States (a country which continues to dispute the Canadian position on the international legal status of the Northwest Passage [NWP] and the maritime boundary in the Beaufort Sea).[4] Second, the principal Arctic security requirement will not be determined by the need to defend the Arctic, but rather by the ongoing geopolitical imperatives of the fundamental security needs of Russia, the United States and, increasingly, China. On a superficial basis, it appears to be a region of exceptional cooperation. But in reality, much of the cooperation has only been about "agreeing to agree" and has not involved core national interests. This is what makes the current situation in the region so difficult to appreciate.

The Canadian government will be required to act because the Arctic region is beginning to demonstrate its importance again as a strategic location. The great powers — the United States, Russia and China — have begun to revisit the importance of the Arctic for strategic purposes that go beyond the Arctic itself. None of these states have given any meaningful consideration to the possibility of having to engage in a conflict over the Arctic, its resources or the boundaries of the extended continual shelf. However, there is a growing recognition that the Arctic region is becoming increasingly important for the protection of core security interests of the great powers. Russia is building up its submarine forces in the region to maintain its nuclear deterrent and the United States is building up its anti-ballistic missile (ABM) capabilities in Alaska to defend against North Korea. These are not Arctic missions but still require substantial forces to be placed in the Arctic. As the overall core security needs and interests of the United States, Russia and China continue to diverge (due to reasons far removed from the Arctic), the strategic importance of the Arctic will continue to increase.

Canada is not and cannot remain quietly on the sidelines as this occurs. First, Canada is an Arctic nation and these events will have a direct bearing on Canadian security. Second, Canada is an ally of the United States. By treaty, it stands with the United States for the simple reason that when it comes to the Arctic, Canadian and American security interests are very close. There are of course the ongoing disputes between the two regarding the delimitation of the northern maritime boundary in the Beaufort Sea and the ongoing disagreement regarding the international legal status of the NWP. Despite differences, there is no question that an increasingly aggressive Russia (or China) that increases its

3 See for example, Ikenberry, Jisi and Feng (2015) and Taylor (2008).

4 For a detailed examination of this issue see Griffiths, Huebert and Lackenbauer (2011) and McDorman (2009, 181–89; 225–68).

strategic actions in the Arctic ultimately challenges the security of both Canada and the United States. Canada ultimately depends on the United States to provide for its Arctic security through NORAD and NATO. The question that needs to be addressed, though, is how serious is the challenge of this expected aggressiveness? In other words, as the title of this commentary suggests, the question is: Why, two decades after the end of the Cold War, should there be a renewed concern about the Canadian Arctic requirement for security alliances between Canada and the United States?

The Problem

As Russia was recovering from losing the Cold War, there was little it could do but act in a cooperative fashion in the Arctic. As long as it did so, it was rewarded by the West. That is, it was included as an equal partner in all negotiations — an issue of status that has always been important to Soviet/Russian governments. It also received substantial financial and technological assistance in the disposal of its Soviet era nuclear-powered fleet of submarines.[5] There were direct payoffs to cooperating with the other Arctic states and in keeping up the appearance that the Arctic was a special region of cooperation. But as Russia began to recover from the political and economic costs of the loss of the Cold War — and was largely fuelled by the international rise of oil prices (Appel 2008) — it began to redevelop its strength in the region and came to resent being in a position of having to receive rewards from the West (Simes 2007).

Thus there were significant plans to rebuild much of its military power. Most observers at the time discounted these intentions as "grandiose" and as most likely targeting domestic audiences and not really being directed at regaining Russian power.[6] However, it is now becoming apparent that Russia is seeing the need to rebuild its military power in the Arctic region for strategic reasons. It has begun to strengthen all branches of its military well beyond the needs of simply protecting its northern resources. While keeping within the parameters of the discourse of cooperation, it has remained committed to regaining its position as the regional hegemon. It resumed long-range bomber patrols up to the borders of all of its northern neighbours, including Canada, beginning in 2007 (BBC News 2007), and recommenced its large-scale exercises in that same year (Sergunion and Konyshev 2015, 149–52). It resumed deployment of its nuclear-powered submarines in 2009 (Kristensen 2012). It has continued to expand both the scope and size of these, to the point that in 2015 its exercise involved over 38,000 troops (Isachenkov 2015).

The Russian actions are based on at least two core requirements. First, they have found that as their relations diverge from the West, their strength in the Arctic region allows them to register their displeasure in this location; thus as the Ukrainian crisis escalated, they increased both the tempo and complexity of their long-range bomber patrols (sometimes escorted by fighters) up to the airspaces of Canada, United States and Norway (Robinson 2014). At the same time they have increased the violation of both the waters and the airspaces of countries such as Sweden and Finland (Writte 2014).

5 See US Government Accountability Office (2004) and Foreign Affairs and International Trade Canada (2011).

6 See Roberts (2010) and Lackenbauer (2010).

Second, the Russians have been rebuilding their nuclear deterrent forces with a clear focus on the Northern Fleet. While most observers have made the assumption that the role of the nuclear weapons had disappeared at the end of the Cold War, this is not the case. All of the "traditional" nuclear powers have retained and modernized their nuclear forces.[7] Russia and the United States eliminated some classes of weapons and reduced the overall size of their arsenal through the Strategic Arms Reduction Treaty process, but have also continued to modernize their remaining forces. For the Russians, the retention of their nuclear stability (somewhat, but not completely equivalent, to western understanding of nuclear deterrence) has always remained a core security requirement (Kokoshin 2011). It is increasingly apparent that the Russians are committed to the rebuilding of their submarine deterrent based in the Northern Fleet (Nilsen 2013). Many of their most modern elements of the SSBN (nuclear-powered submarines carrying nuclear missiles) fleet is based in the Kola Peninsula, in the far northwest of Russia. Their move to rebuild the bases along their northern coast is also related to providing the necessary protection of the Fleet (see Bodner 2015). This is perhaps the core security requirement of the Russian military and, as such, it will grow in importance and any perceived threat to it will be treated with the utmost seriousness.

At the same time, the United States never ceased its strategic interest in the Arctic and, in particular, its ability to respond to the Soviet/Russian submarine forces. While public attention has been focused on the spectacle of their almost comical inability to build new icebreakers,[8] they have at least shown that they can build the submarines that can operate in the region. The Americans have never stopped deploying nuclear-powered attack submarines (SSN) to the region, even after they had won the Cold War. There had once been some consideration by the Americans to eliminate their submarines that had an under-ice capability (US Government Accountability Office 1998). With the end of the Cold War, they did abandon the production of their Seawolf class attack submarines, which were deemed to be unnecessarily expensive in the face of the collapse of the Soviet submarine force. However, the replacement of the Seawolf class has turned out to also have an under-ice capability that United States Navy (USN) leaders had suggested would not be retained to save costs. However this is not the case. The Americans have taken subtle but unmistakable steps to demonstrate that all of their submarines — including their most recent Virginia class — are capable of operating in the Arctic.[9] The USN has developed the practice of deploying its submarines on science-based missions to the Arctic every two years. There is no doubt that these deployments engage in outstanding science, but these missions are also very important in broadcasting to the world that the USN retains the ability to operate in the region. Called ICEX, these missions will always include the release of publicity shots of the surfaced submarines. Their presence will then be confirmed by the civilian scientists who are part of the mission. In March 2009, the USN deployed two of their older Los Angeles (LA) attack submarines. In 2011, they

7 For a status of the world nuclear forces, see Kristensen and North (2016).

8 See O'Rourke (2014).

9 See www.csp.navy.mil/archived_news/Oct09/release_09054.shtml.

sent one Seawolf class submarine and, for the first time, a Virginia class submarine. ICEX 2014 saw the deployment of an LA class and a Virginia class submarine.[10] The messaging cannot be missed by the Russians or any other maritime power. The Arctic remains an area of operation for the submarine forces of the USN.

At the same time that the Americans have retained their SSN Arctic capabilities, they have also taken steps that have linked their commitment to developing an ABM capability to the Arctic. The Americans have transformed one of their old Cold War bases into one of their most important elements in their defence against the North Korean missile threat. Located close to the Canadian border, Fort Greely in Alaska has 26 mid-course interceptors that are operational and has added an additional 14 following the 2013 successful missile launch by North Korea (Burns 2013). The Americans increase the capabilities at the base every time the North Koreans improve their ability to fire nuclear armed missiles at North America. Given the recent report that North Korea has successfully launched a payload, or nuclear weapons delivery, into orbit, it is likely that further upgrades to Fort Greely's capability will soon be made.

The American base is currently focused entirely on only responding to a North Korean threat. But given the fact that the Americans are continually upgrading the base's capability, it is more than likely that both the Russians and the Chinese have taken note of its improving abilities, as well as its location. Once again, this is not about powerful forces being in the Arctic for a conflict *about* the Arctic, but rather about forces in the Arctic that are designed to respond to threats elsewhere but which will inevitably involve the Arctic.

A very recent and troubling wild card in all of this has been the arrival of the Chinese navy (officially known as the People's Liberation Army Navy [PLAN]) in Arctic waters. While their icebreaker *Xue Long* has been sailing in Arctic waters since 1999, the arrival of a five-ship naval fleet into Alaskan waters in September of 2015 is a new development. The five vessels followed international maritime law and at no point acted provocatively. But when taken into consideration with China's increasingly aggressive actions in the East China Sea and South China Sea, this northern deployment is difficult to view in isolation. It's important to keep in mind that, for the first time, the Chinese also engaged in naval port visits with Finland, Sweden and Denmark in 2015.[11] It is worth noting that the bypassing of Norway suggests that the Chinese have still not forgiven the Norwegians for giving a Nobel Peace prize to a Chinese dissident.

What is clear is that the Chinese are now sending their naval forces into the Arctic region. It is unlikely that this is a one-time event. It's unknown whether or not they intend to provide their submarine forces with the capability for under-ice operations. If this was to happen, the arrival of PLAN SSNs would substantially complicate the maritime strategic picture for the Americans, Russians and Canadians.

10 For more on ICEX see www.navy.mil.

11 For more on China's naval visits, see http://thediplomat.com/2015/10/chinas-navy-makes-first-ever-tour-of-europes-arctic-states.

The Arctic Security Dilemma

So where do these developments leave Canadian decision makers? In the short term, it is still possible that Canada can go on hoping that the Arctic is an exceptional zone of peace and that the harder elements of security consideration of the region can be ignored. But in both the medium and longer term this is clearly impossible. The Arctic remains an area of significant strategic interests to all of the great powers. Like it or not, Canada therefore needs to respond to this challenge. The framework of this will be to work within the existing alliance in a way that will best strengthen its ability to be aware of what's happening in the region and to respond if necessary. Any effort to reinvent a new set of systems on a unilateral basis would ultimately be prohibitively expensive and very difficult for Canada on its own.

Andrea Charron's essay in this report provides an excellent review of many of the steps that are now necessary in regards to NORAD and do not need to be repeated here. The issue of NATO involvement is much more complicated. During the Harper administration it was exposed through WikiLeaks that Canada has strongly resisted an initiative by Norway to refocus parts of the alliance on the Arctic.[12] It remains uncertain why Canada did not want to expand NATO involvement in the region. There is a fear that this will have a negative impact on the Canadian position on the NWP, and other speculation has suggested that the Canadian government had been resentful of the alliances for what it saw as a refusal of most members to play a more meaningful role in the Afghanistan mission. Be that as it may, one consideration that could have played a role may have been concern over the response of the Russians. The Norwegian proposal to refocus attention occurred before the Ukrainian crisis. At the time, there may have been a sensitivity that such actions could have been perceived as making the Russians feel encircled in the North. If that was the case, however, the Russian actions in Ukraine may have changed this concern. But a new challenge has developed. As mentioned earlier, the Russians have signalled part of their displeasure with the response of the West to the Ukrainian crisis by taking provocative action against Finland and Sweden. What then would be the response of the alliance and Canada if either or both of these states were to apply for membership into NATO? The response of Russia would likely be both strong and direct. It is difficult to see Arctic areas of cooperation such as the Arctic Council continuing in a meaningful fashion. If Finland and Sweden joined NATO, then the Arctic Council would be made up of seven NATO members and Russia. In an atmosphere of growing distrust, it is unlikely that the successes of the 1990s and early 2000s could be maintained. But on the other hand, could Canada refuse the request of Finland and/or Sweden? Would it be more important for Canada to avoid antagonizing Russia, but at the price of refusing the request of two democracies that have excellent relations with Canada? This is not an easy policy decision, but one that may come sooner rather than later.

12 See www.theglobeandmail.com/news/politics/harpers-tough-talk-on-the-arctic-less-stern-in-private/article579749/.

Conclusion

In conclusion, it should be apparent that Canada faces some very difficult choices in the future. While it is possible to hope that the Arctic will continue to be a region of cooperation, that type of a future is clearly one that serves Canada's national and international interests. Unfortunately, a closer examination of some of the core strategic interests and requirements of the region makes this appear increasingly unlikely. The question that then follows is what does Canada do? The answer lies in its existing alliances. But perhaps most troubling about this reality is that as Canada moves in this direction, it will see the end of many of the Arctic-based cooperative initiatives that it pioneered.

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