

AURA Project Report/Russ Patrick Award Submission

**Escalating Interest and Complexity in the Melting Arctic:
Maritime Boundary Disputes in the Lomonosov Ridge
and Other Issues of Arctic Law and Geopolitics**

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Introduction

Climate change is rapidly altering the Arctic. Once peripheral in global concern, the Arctic is now at the forefront of the political agendas of states with Arctic territory, including Canada, the United States and Russia, and is also garnering interest from more distant states such as China. This interest is rooted in the presence of untapped oil and gas deposits, which are becoming accessible due to the accelerated rate at which the ice is melting. With rising prices, the continental shelves of the Arctic Ocean represent the world's largest unexplored area for oil. Media interest has also been keen, with numerous news outlets emphasizing the possibility of conflict over these resources, partly due to a set of overlapping claims to maritime areas. In light of heightened interest and complexity in the thawing Arctic, it is critical that Arctic states – in partnership with indigenous peoples and other interested parties – cooperatively resolve disputes and enact strong policy to ensure a peaceful and healthy Arctic environment.

Research task 1: international conference and academic paper on the Lomonosov Ridge Dispute

As a beneficiary of an AURA grant, I had the great opportunity to work directly with Dr. Byers and his PhD student, James Baker, on the Lomonosov Ridge dispute. Our projects entailed

the organization and leading of a conference on the Lomonosov Ridge dispute that brought together an array of prominent Canadian and international academics and professionals to discuss the scientific, legal and political complexities surrounding the Lomonosov Ridge. The in-depth discussions informed our second project: the researching and writing of an article on the Lomonosov Ridge, which has recently been submitted to the American Journal of International Law.

Research overview

The past decade has witnessed unprecedented international attention on the Arctic's Lomonosov Ridge. The 1,700 kilometer long ridge dissects the Arctic Ocean into the Amerasian and Eurasian Basins.¹ There is a possibility that Canada, Denmark (on behalf of Greenland) and Russia may be legally entitled to claim part or all of the Lomonosov Ridge as a natural component of their continental margins. If entitled, their seabed jurisdiction would spread to all but two small areas of the Arctic Ocean.

The current legal regime of the continental shelf and ridges was established during the Third UN Conference on the Law of the Sea and codified in Part VI of the 1982 UN Convention on the Law of the Sea (UNCLOS).² Under UNCLOS, each coastal state may legally exploit the subsoil, seabed and resources of the water column up to a distance of 200 nautical miles from its baselines as part of the regime of the Exclusive Economic Zone (EEZ). To gain jurisdiction of the seabed beyond 200 nautical miles, countries may use scientific information about the continental shelf and appeal to Article 76 of UNCLOS, which offers a set of formulae for

¹ H. Ruth Jackson, Trine Dahl-Jensen, & the LORITA working group, "Sedimentary and crustal structure from the Ellesmere Island and Greenland continental shelves onto the Lomonosov Ridge, Arctic Ocean," (2010) 182 *Geophysical Journal International* 11.

² U.N. Doc. A/CONF.62/122 (1982), reproduced in 1982, 21 *International Legal Materials* 1261, available at: http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm

establishing rights beyond the EEZ. Countries must submit their scientific evidence to the Commission on the Limits of the Continental Shelf (CLCS). The CLCS is a body of scientists elected by the members of UNCLOS to issue recommendations on submissions concerning the outer limits of coastal states' rights over extended continental shelves.³ It is important to note that there is not just one way to submit a claim to the CLCS; there are many options available and some would likely prove more advantageous to Canada than others. Dr. Byers and Baker's article clearly presents the various options available, some of which include submitting a full claim without coordinating with other states, to creating a joint submission with other states, to negotiating permanent boundaries in advance of submitting to the CLCS.

In 2001, the Commission received a submission from Russia suggesting that the Lomonosov Ridge and other underwater formations are part of Russia's continental margin.⁴ However, a 2008 Natural Resources Canada statement indicates the latest scientific research posits the Lomonosov Ridge as being attached to the North American plate.⁵ Though the possibility of overlapping claims between not only Canada and Russia but also the United States and Denmark is very real,⁶ Dr. Byers and Baker's research indicates that, contrary to some politicians, media and academic reports, the Arctic Ocean coastal states are politically and legally committed to settling any jurisdiction issues in an orderly, legal fashion. Nonetheless, given that there are many submission options to the CLCS and other dispute resolution methods, and that delimitation of the extended continental shelf in the Arctic is a relatively recent possibility, the legal rules remain somewhat uncertain. Consequentially, it is impossible to reach

³ UNCLOS, art. 76, available at: http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm

⁴ Submission by the Russian Federation: Summary, available at: http://www.un.org/depts/los/clcs_new/submissions_files/submission_rus.htm

⁵ Natural Resources Canada, "Using Science to Delineate the Limits of Canada's Continental Shelf," <http://www.nrcan.gc.ca/earth-sciences/about/organization/organization-structure/geological-survey-of-canada/8335>

⁶ Department of Foreign Affairs & International Trade, "Extended Continental Shelf: International Cooperation," <http://www.international.gc.ca/continental/collaboration.aspx?view=d>. The participating scientists would have carried out their research without any predetermined conclusion.

a definite conclusion about the delimitation methods the coastal states will or should use in the central Arctic Ocean.

In light of this complexity and uncertainty, Dr. Byers and Baker provide in-depth analysis of potential routes to dispute resolution in the Lomonosov Ridge. For instance, Canada, Denmark and Russia could usefully coordinate their submissions to the CLCS, perhaps even making a joint submission, in order to ensure that the CLCS can provide them with the information necessary to permanently resolve the juridical status of the Lomonosov Ridge, as well as other parts of the Arctic Ocean seabed. However, Canada, Denmark and/or Russia may wish to delimit temporary or permanent maritime boundaries between their claims in order to create a stronger degree of certainty and stability while they wait for recommendations. As alternatives to delimiting final maritime boundaries, two or more of the three countries could decide on other cooperative arrangements, such as joint development or joint management regimes.

Whichever route taken, it will only help to maintain the healthy dynamic of cooperation that has defined Arctic Ocean politics until now. Lawful cooperation is significant since there are many vital interests at stake that are becoming more pronounced as the ice recedes each year, including economic (potential resources, shipping lanes, etc), political (domestic election card, sovereignty), human (indigenous well-being and self-determination) and environmental and scientific. It is critical that Canada quickly and carefully consider its options for submission to the CLCS since Parties to the UN Convention must submit scientific data relating to their proposed continental shelf limits to the CLCS within ten years of ratification, meaning that Canada's deadline is 2013. Once the CLCS issues recommendations in response, limits

established on the basis of those recommendations become final and binding on other Parties to UNCLOS.⁷

Research task 2: book draft on Arctic law and geopolitics

My second research task area as an AURA researcher was working as the lead research assistant on the writing of a book on Arctic law and geopolitics (soon to be submitted to Cambridge University Press). The book is part of a larger project supported by ArcticNet, a federally funded consortium of scientists from 27 Canadian universities and eight federal departments. My day-to-day tasks involved editing chapters and verifying citations as well as locating, reading and synthesizing primary and secondary documentation, including international treaties, domestic statutes and regulations, government statements and speeches and media publications.

Research overview

This book addresses an array of critical issues in this climate sensitive area, such as land territory, maritime boundaries, environmental protection and indigenous issues. One particularly concerning subject is the matter of oil spills in Arctic waters and the current absence of a multilateral marine oil pollution response instrument specific to the Arctic. All eight Arctic countries have ratified the 1990 Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), a treaty arranged within the structure of the International Maritime

⁷ McDorman argues that the limits only become final and binding on the coastal state, with other states becoming bound to respect such limits if they do not protest them and they become generally accepted. Ted L. McDorman, "The Role of the Commission on the Limits of the Continental Shelf: A Technical Body in a Political World," (2002) 17 *International Journal of Marine & Coastal Law* 301, 315.

Organization.⁸ Parties to the OPRC Convention are obligated to enact procedures for handling pollution incidents, including through stockpiling oil spill equipment, developing cleanup plans, and holding exercises. Parties must also cooperate in the event of a spill, including by providing equipment when requested by another party. In addition, the OPRC Convention encourages the development of bilateral and multilateral agreements for oil pollution preparedness and response.

In 1997, the Arctic Council - a high level intergovernmental forum for Arctic states⁹ - adopted a set of “Arctic offshore oil and gas guidelines” which it updated in 2002 and again in 2009.¹⁰ Though the guidelines contain general principles as well as more detailed recommendations, they are lacking in two ways. First, they are non-binding, with all the compliance problems this can entail. Second, the guidelines evade some of the more difficult and critical issues, such as whether oil companies should be required to maintain a same-season relief well capacity. A relief well is a well deliberately drilled parallel to a blown out well in order to lessen the pressure from the escaping oil, enabling the primary well to be capped.

In May 2011, the Arctic Council began negotiating a treaty on Marine Oil Pollution Preparedness and Response by creating a task force.¹¹ The task force, which is co-chaired by Norway, Russia and the United States, will present its results in May 2013. The task force will likely put forward a finished treaty modeled after the 2011 search-and-rescue treaty and therefore focus on improving communication and coordination when accidents occur. It is doubtful that the treaty will go beyond the OPRC Convention by addressing difficult issues like the above-mentioned relief well capacity or the raising or removal of liability caps. In the Canadian Arctic,

⁸ 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation, available at: <http://www.ifrc.org/docs/idrl/I245EN.pdf>

⁹ See: Arctic Council website, at: www.arctic-council.org/index.php/en/

¹⁰ For the 2009 version, see: <http://www.pame.is/offshore-oil-and-gas/77-arctic-offshore-oil-and-gas-guidelines-2009>

¹¹ See: Task Force on Arctic Marine Oil Pollution Preparedness and Response, at: <http://www.arctic-council.org/index.php/en/about-us/task-forces/280-oil-spill-task-force>

liability for an offshore oil spill is limited to just \$40 million, according to the 1970 Arctic Waters Pollution Prevention Act.¹² It is significant to note that British Petroleum (BP) has estimated its costs from the 2010 *Deepwater Horizon* blowout in the ice-free waters of the Gulf of Mexico to be approximately \$41 *billion*, including compensation for environmental and economic damage.¹³

Although improved communication and coordination are beneficial, the risks associated with Arctic oil will remain immense. The essence of the matter was presented in a 2010 World Wildlife Fund report, which read: “Mounting an effective response to a major oil spill in the Arctic is presently not possible due to enormous environmental challenges, a lack of capacity and the severe limitations of current response methods in ice-covered waters.”¹⁴ The same report recognized a “response gap” whereby: “Due to the Arctic’s remoteness and extreme weather, there is also a high percentage of time when no response, however ineffective, could even be attempted.”

The Arctic could experience a complete, late-season melt-out of sea ice within the next five-plus years and, therefore, a permanent loss of the main obstacle to shipping oil: the multi-year ice. With this in mind, Dr. Byers’ research indicates that what is urgently needed is an Arctic-wide treaty that focuses on oil spill prevention. The treaty should require companies to internalize all costs associated with offshore drilling and shipping, since oil companies can only be relied on to develop and implement the very expensive safety measures necessary in the Arctic if they are compelled to bear the entire financial risk.

¹² *Arctic Waters Pollution Prevention Regulations*, C.R.C., c. 354, s. 8 (“For the purposes of section 6 of the Act, the maximum amount of liability of an operator in respect of each deposit of waste is as follows: ... (f) in the case of an operation engaged in exploring for, developing or exploiting oil and gas, \$40 million.”)

¹³ Jonathan L. Ramseur, “Liability and Compensation Issues Raised by the 2010 Gulf Oil Spill,” Congressional Research Service, 11 March 2011, available at: http://assets.opencrs.com/rpts/R41679_20110311.pdf

¹⁴ World Wildlife Fund, “Drilling for Oil in the Arctic: Too Soon, Too Risky,” 1 December 2010, p. 3, available at: <http://www.worldwildlife.org/what/wherewework/arctic/WWFBinaryitem18711.pdf>

Research contribution and impact

The aim of our research this summer has been, at minimum, the enrichment of the emerging literature on pressing issues in the Arctic. However, given the unprecedented nature of the challenges in a warming Arctic, our ultimate aim is to impact policy, including the (peaceful) resolution of maritime disputes, particularly the Lomonosov Ridge dispute - while securing fair outcomes for Canada – and the establishment of an Arctic oil spill prevention treaty, among many other issues discussed at length in the book.

Learning reflections

I have had the privilege to work with Dr. Byers for the past two summers as a research assistant. During this time, I have honed the academic skills I had been building in the political science Honours program as well as added vital career skills and understanding about professorship as a career. I feel intellectually enriched by the extensive knowledge I have gained about the Arctic - a unique and critically important topic area. My work with Dr. Byers has been invaluable as I think about applying for graduate school and preparing for potential careers. I thank the AURA program for making this experience possible for me and hope that students can continue to benefit from AURA's support.