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The Geopolitics of Arctic Passages and Continental Shelves

BY FRÉDÉRIC LASSERRE, LAVAL UNIVERSITY

Melting summer sea ice in the Arctic is documented and has been making the headlines since 2007. The phenomenon, underlined by scientists and the media since the turning of the century, has triggered speculation on the opening of much shorter sea routes linking Europe via the eastern North American coast to Asia, as well as increased access to the mineral riches of the region. The prospect of growing shipping traffic in Arctic waters, especially through the Northwest Passage in the Canadian Arctic archipelago, or through the Northeast Passage north of Russia, has fuelled rhetoric on the status of these Arctic routes and controversy over the pace of such shipping growth. Similarly, much rhetoric has been voiced regarding the extent of continental shelves in the Arctic.

There are actually two very different issues regarding Arctic sovereignty for Canada at the present time. They are often confused but do not imply the same policy actions, nor the same dimensions of the UN Convention on the Law of the Sea (UNCLOS), which Canada ratified in 2003. These two issues are, first, the extension of the continental shelves beyond the Exclusive Economic Zones (EEZ) of the 5 riparian countries bordering the Arctic Ocean; and, second, the political and legal status of the Arctic passages, namely the Northwest Passage across the Canadian Arctic archipelago, and the Northeast Passage, north of Siberia.

I. THE STATUS OF THE NORTHWEST PASSAGE

The potential opening up of shipping routes through the Northwest Passage, across the Canadian archipelago, as well as along the Northeast Passage, north of Siberia, has raised security concerns as it implies a potential surge in navigation of all sorts of ships. Analysts have speculated about potential threats to the environment, should an oil tanker run aground or sink; to military security, should terrorists try to infiltrate North America through the back door of a sparsely populated and poorly monitored area; or to human security, should a passenger ship hit a growler (an iceberg) and sink, as happened to the *MS Explorer* in Antarctica in November 2007. The question of sovereignty over the Northwest Passage (claimed as internal waters by Canada) and the Northeast Passage, crossing areas claimed by Russia as internal waters, boils down to who controls shipping along both passages.

Contrary to common belief, the dispute does not stem from the recent melting of the Arctic ice. Disagreement over the status of the waters in the Canadian archipelago between Canada and the United States coalesced during the 1960s. In 1969, the U.S. oil tanker *Manhattan's* trip through the Arctic catalyzed the realization within the Canadian government that if Canadian sovereignty was to be extended over the waters of the archipelago, political action was required as shipping could develop to exploit recently discovered oil in Alaska. But the two countries agreed in January 1988, with the *Arctic Cooperation Agreement*, to manage their disagreement and stand with the *status quo*. Shipping, at the time, proved to be an uneconomical option (leading to the construction of the Alaska pipeline during the 1970s). Sovereignty fears emerged again at the end of the 1990s as it became apparent that the melting of the Arctic ice could potentially trigger a surge in commercial shipping.

The dispute between Canada and the United States (very similar to the dispute over the Northeast Passage between the US and Russia) boils down to the juridical status of the Northwest Passage (NWP). For Canada, the NWP is part of its internal waters for historic reasons; they lie behind Canada's claimed baseline (1986) and there is full Canadian sovereignty over them, including the right to deny transit to any ship. For the US, the NWP is an international strait in which, UNCLOS specifies, there is a non-suspendable right of transit even if Canada's baseline was legitimate (which the US denies). The European Union agrees with Washington over both the NWP and the Northeast Passage, whereas Russia and Canada recognize each other's claim over their respective Arctic passages.

The *status quo* was implicitly agreed upon between Ottawa and Washington with Canada refusing the US invitation to submit the issue to the International Court of Justice in 1970 and with the signing of the Arctic Cooperation Agreement in 1988. It is therefore not challenged by Washington. But when asked why the US refuses to recognize Canada's claim over the NWP, several American officials stated that it is not so much about the NWP itself but rather a fear that it might constitute a precedent for other countries to infringe on freedom of shipping.

II. PANAMA

There might be no reason for alarm for Canadians. The US does not particularly want free access to the NWP and a massive surge in shipping in the Arctic is unlikely. Even though a definite trend of reduced surface and thickness of the sea-ice cover can be documented, there will always be ice in winter, as well as the polar night and Arctic temperatures. What may change here with climate change is the approximate date when the sea-ice breaks up in the spring—sooner than now—and when it reforms in winter—later than now. It is impossible, from one year to the next, to anticipate the exact date of these events, thus leaving shipping firms guessing when they could begin and end their services through Arctic routes.

The pace and geography of the spring breakup will be different from year to year, allowing drifting ice to move with currents and winds and possibly clog specific straits. The melting of the Greenland ice cap will unleash hundreds of icebergs into Baffin Bay that will gradually break up into smaller bergs. These ice chunks can present a real hazard to shipping. Small in size—a growler is about a meter large—they nevertheless weigh a lot, more than a metric ton. Being made of multi-year ice, they are also extremely hard, and they barely float above the surface, making detection very difficult. Hitting one at full speed could prove devastating for a ship hull. In November 2007, the cruise ship *MS Explorer* sank in Antarctica after hitting a growler, despite it having an ice-strengthened hull. Navigation through the NWP could therefore be slower than navigation through normal routes, increasing transit time.

Containerized traffic, the backbone of manufactured goods transportation, operates in a just-in-time mode. Shipping firms in this market do not merely sell transportation; they sell a schedule and a delivery date. If late, the shipping firm must pay heavy penalties and incur reduced credibility. It must be underlined that there will be drifting ice in the Arctic, and that it is impossible to predict when the ice will melt and when it refreezes. A strait closed temporarily because of a late breakup of sea ice, or a concentration of icebergs or drifting ice, could lead to delays, since the ship would have to slow down or change route. These delays would prove, in such a competitive industry, much more costly than the savings from the fuel economy that the Northwest Passage could bring. During the time it takes to ship from Rotterdam, for instance, to the Northwest Passage, drifting ice can clog a few straits and thus force a ship to take the Panama route.

The seasonality of the route also implies that container shipping firms would have to change schedules twice a year, which is costly and increases the risk of expensive delivery errors. And these schedules must be defined early so as to be able to publish them. There is a huge risk that the ice may not have freed all the straits when the new schedules are enforced, or the temptation might be great to implement the summer schedules for only a few weeks, which is unprofitable given the cost and the risk associated.

Finally, most container shippers integrate several stopovers in their routes, so as to maximize their potential market. For instance, on the route between the Mediterranean and Eastern Asia, CMA-CGM stops over in Damietta (Egypt), Jeddah (Saudi Arabia) and Djibouti. Hapag-Lloyd also includes stopovers in Jeddah and Colombo (Sri Lanka) before reaching Singapore. With an Arctic route, where there is no berthed port—except in Greenland and in Siberia—and a very small container market, shippers must consider whether a reduced distance will make up for the loss of the market incurred by several stopovers.

It is therefore dubious to assert that Arctic routes will soon be plied on a regular basis by container ships. Bulk shipping (cereals, minerals, wood, cement), however, being less reliant on a specific delivery date and not operating on a timetable, could be more applicable in testing the cost opportunities of the Arctic Passages, with lightly reinforced ships, but the cost of such transits and therefore the prices these shippers could offer remain widely debated. A survey conducted by the author in 2010 among 125 shipping companies revealed the interest among them is rather low for Arctic passages.

III. REGIONAL SHIPPING

This scenario is all the more likely as resource exploitation looms high in the media coverage of the Arctic. Mining and hydrocarbon exploitation triggers increased shipping activity. Mining activities will boost shipping in the area both to ensure the export of the ore produced, but also to service the mine with equipment and staff. Mines on the continental part of Arctic Canada, like the Ekati gold mine, are, for now, serviced by winter roads; but these roads must be rebuilt every year and have a shorter lifetime as well as a greater vulnerability in autumn and spring because of warming temperatures. It is therefore likely that even continental mines will try to develop a sea link. On July 5th 2007, a consortium of seven mining firms, including Rio Tinto, announced they were sponsoring environmental impact studies to construct a deep-water port in Bathurst Inlet, on the Coronation Gulf. Exploration is gradually moving north, into the Canadian archipelago in North America, and East in Siberia, where shipping is the only transportation mode.

The Canadian shipping company Fednav is already exploiting two ice-strengthened cargo ships to service the Northern Labrador nickel mine of Voisey's Bay and the Northern Quebec mine of Raglan. Chosen to act as the logistics operator for the Mary River iron mine in Baffin Island, it ordered new ice-strengthened ships to service the mine when it begins activities in 2013. In Siberia, mining operations have long been serviced by ship, but the expected increase in operations, both for mineral exploitation as well as for oil and gas, is expected to sustain shipping growth.

It is important to emphasize that this kind of destination shipping (not transit), along a growing shipping activity to service local communities in the Arctic, must stop at local ports, whether communities or mining operations. Ships must therefore abide by Canadian law in the Canadian Arctic.

IV. CONTINENTAL SHELVES

The focus of media attention in Canada gradually shifted from the Northwest Passage sovereignty issue to the continental shelf issue. UNCLOS provides for two marine spaces where States have sovereign rights but not a full sovereignty; the Exclusive Economic Zone, which extends 200 nm (320 km) from the baseline, in which the coastal State enjoys rights on the exploitation of economic resources both in the seabed and the waters; and the extended continental shelf. If the real geologic continental shelf extends beyond the 200 nm limit, the coastal State enjoys the right of exploitation of natural resources of the seabed.

The EEZ is easy to determine, but for States to benefit from an extended continental shelf, they must prove to the Commission on the Limits of the Continental Shelf, a UN body, that there definitely is an extension of their geologic shelf beyond the 200 nm limit. As a result there has been the flurry of oceanographic campaigns set up by the Arctic States to document the limits that each State will claim. The Commission will not define borders, it will merely recognize the geologic validity of the claims. It is up to the States with overlapping valid claims to settle the dispute.

Another reason for the perception that there is a race underway to carve up the Arctic is that States have ten years after they ratify UNCLOS to submit their extended continental shelf claim to the Commission. As Canada ratified in 2003, it must submit a final claim in 2013. It is this time limit embedded in the very Law of the Sea Convention that spurred so many oceanographic campaigns in recent years.

This concept of a race to the Arctic is all the more surprising as there is nothing in UNCLOS that provides for the idea that the first country to claim a piece of the continental shelf would be more entitled to it. There is no "first in time, first in right" clause as far as continental shelves are concerned; the coastal states benefit from a permanent right to it, should their geology be able to satisfy the criteria.

TABLE 1. ARCTIC STATES: RATIFICATION OF UNCLOS AND TIME LIMIT FOR CLAIMS APPLICATION FOR EXTENDED CONTINENTAL SHELVES

| | RUSSIA | NORWAY | DENMARK | CANADA | USA |
|-----------------------------------|---------------------------------------|-------------------------|---------------|--------------|--------------|
| UNCLOS ratification date | March 12, 1997 | June 24, 1996 | Nov. 16, 2004 | Nov. 7, 2003 | Not ratified |
| Limit Date | May 13, 2009 | May 13, 2009 | Nov. 16, 2014 | Nov. 7, 2013 | - |
| Claim submitted to the Commission | Dec. 20, 2001 | Nov. 27, 2006 | - | - | - |
| Commission ruling | More evidence demanded, June 14, 2002 | Accepted, Nov. 27, 2009 | - | - | - |

The majority of geologists think that most offshore natural resources lie within the 200 nm limit, thus within the EEZ that every coastal State enjoys. It is rather improbable that there will be huge discoveries in the extended continental shelves. States hurry to claim them on the basis that they have a right to it that will lapse if they do not submit a claim before the ten year limit, not because there is an Eldorado of natural wealth in far Arctic waters.

Rhetoric is high whenever the issue of sovereignty is concerned in the Canadian Arctic. Fears, whether serious or imagined, about external infringements on what Canada considers its legitimate rights are not new in the Northwest Passage, as a dispute arose with the USA in the 1960s. To date, the status quo prevails and the NWP is not high on the agenda in Washington. A few documents from the Department of State hint to the idea that Washington would not mind Canada managing shipping in the NWP. What is at stake is an official recognition of a Canadian sovereignty that the US fears might give ideas to other States in strategic straits.

The dispute regarding the continental shelves is more recent. It stems directly from the dispositions of UNCLOS. Contrary to the common idea, there is no unruly rush to the region, nor any arms race that hints at a serious political deadlock. Quite the contrary, States are cooperating in setting up oceanographic campaigns to document the geological evidence, as between Denmark and Canada in 2006 and 2009, Denmark and Russia in 2009, Canada and the USA in 2008 and 2009. Norway and Russia even signed a treaty in 2010 sharing their disputed continental shelves and EEZ, whereas many observers thought the conflict was so bitter it would take years to solve, if at all. The Arctic is not set for an unruly period.

FREDERIC LASSERRE is an Associate Professor at Laval University. Frederic's areas of expertise include geopolitics, borders, water management, and the Canadian Arctic. He completed his Ph.D. at the University of Saint-Etienne in France.