

Who Controls the Northwest Passage?

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ABSTRACT

From Martin Frobisher in 1576 to John Franklin in 1845, generations of European explorers searched for a navigable route through the Arctic islands to Asia. Their greatest challenge was sea-ice, which has almost always filled the straits, even in summer. Climate change, however, is fundamentally altering the sea-ice conditions: In September 2007, the Northwest Passage was ice-free for the first time in recorded history. This Article reviews the consequences of this development, particularly in terms of the security and environmental risks that would result from international shipping along North America's longest coast. It analyzes the differing positions of Canada and the United States with respect to the legal status of the waterway and argues that the end of the Cold War and the rise of global terrorism have changed the situation in such a way that the Canadian position—that the Northwest Passage constitutes Canadian internal waters subject to the full force of Canadian domestic law—actually coincides with U.S. interests today, as well as the interests of other responsible countries and shipping companies.

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I. INTRODUCTION

“Where has all the ice gone?” Joe Immaroitok asked.¹ It was October 24, 2006, and he was staring at Foxe Basin. A shallow expanse of ocean the size of Lake Superior, the basin usually freezes over by early October, enabling the Inuit to travel across to Baffin Island to hunt caribou. That winter, the town council in Igloolik was

1. Interview with Joe Immaroitok, Member, Hamlet Council of Igloolik, Nunavut, Can. (Oct. 24, 2006) (on file with authors).

considering chartering an airplane to take the hunters across the unfrozen sea.²

A few hours before we spoke with Immaroitok, we had sailed through Fury and Hecla Strait on board the CCGS *Amundsen*, Canada's research icebreaker. All we saw were a few chunks of thick, aquamarine "multiyear" ice—formed when ice survives one or more summers and new ice accretes to it. The chunks, which had floated down from higher latitudes, were easily avoided. The previous day, we had passed through Bellot Strait—the first ship ever to do so in October. We were 350 miles north of the Arctic Circle, but there was no ice.

The two straits are part of the Northwest Passage, the so-called "Arctic Grail."³ From Martin Frobisher in 1576 to John Franklin in 1845, generations of European explorers searched for a navigable route through the Arctic islands to Asia.⁴ Many of them—including Franklin and his men—died in the attempt.⁵ Their greatest challenge was sea-ice, which has almost always filled the straits, even in summer. William Parry spent the summers of 1822 and 1823 waiting for the ice to clear from Fury and Hecla Strait.⁶ Although the strait is named after his ships, he never made it through.⁷ Leopold M'Clintock, dispatched by Lady Franklin to search for her husband on King William Island, tried six times to penetrate Bellot Strait during the summer of 1858 before continuing his journey by dog-sled.⁸ It took Roald Amundsen three years—including two winters lodged in the ice at Gjoa Harbour—to complete the first full transit of the Northwest Passage in 1906.⁹

In 2004, the Arctic Climate Impact Assessment reported that the average extent of sea-ice cover in summer had declined by 15%–20% over the previous thirty years.¹⁰ The remaining ice was 10%-15% thinner overall and 40% thinner in some areas.¹¹ These trends were

2. *Id.*

3. This expression was coined in PIERRE BERTON, *THE ARCTIC GRAIL: THE QUEST FOR THE NORTHWEST PASSAGE AND THE NORTH POLE, 1818–1909* (1988).

4. On the history of the Northwest Passage, see generally *id.*; JAMES P. DELGADO, *ACROSS THE TOP OF THE WORLD* (1999).

5. BERTON, *supra* note 3, at 263–69.

6. *Id.* at 51.

7. *Id.* at 45–52, 58–59.

8. *Id.* at 321–22.

9. *Id.* at 543–47.

10. IMPACTS OF A WARMING ARCTIC: ARCTIC CLIMATE IMPACT ASSESSMENT 25 (2004), available at <http://amap.no/acia/> [hereinafter ACIA]. The ACIA is a joint project of the Arctic Council and the International Arctic Science Committee, the former an intergovernmental network whose members include Canada, the U.S. and Russia. *Id.* at 1.

11. *Id.* at 25.

expected to accelerate such that by the end of the twenty-first century, there might be no sea-ice at all in the summer.¹²

Satellite measurements analyzed by the U.S. National Snow and Ice Data Center are even more alarming.¹³ In March 2006, the area covered during the winter by sea-ice was at an all-time low: 300,000 square kilometers less than the previous year.¹⁴ At this rate, the Arctic could lose all of its multi-year ice by 2030.¹⁵ In September 2007, the European Space Agency released satellite imagery showing that the ice-covered area in the Arctic had dropped to around 3 million square kilometers, roughly 1 million square kilometers less than the previous minimums recorded in 2005 and 2006.¹⁶ The 2007 ice loss was approximately ten times greater than the average annual reduction over the previous ten years.¹⁷ As Leif Toudal Pedersen of the Danish National Space Centre explained, “[t]he strong reduction in just one year certainly raises flags that the ice (in summer) may disappear much sooner than expected and that we urgently need to understand better the processes involved.”¹⁸

The satellite images showed that the Northwest Passage was fully navigable.¹⁹ This remarkable—and remarkably sudden—development is something that policy makers simply cannot ignore. This Article reviews the consequences of the rapidly changing sea-ice conditions in the Northwest Passage, especially in terms of the security and environmental risks that would result from international shipping there. It analyzes the differing positions of Canada and the United States with respect to the legal status of the waterway and considers how those positions might facilitate or hinder efforts to deal with the new security and environmental

12. *Id.* at 13.

13. David Adam, *Meltdown Fear as Arctic Ice Cover Falls to Record Winter Low*, THE GUARDIAN (London), May 15, 2006, at 12, available at <http://www.guardian.co.uk/world/2006/may/15/antarctica.environment>; Jane George, *Welcome to the Final Meltdown*, NUNATSIAQ NEWS (Iqaluit, Nunavik, Can.), May 26, 2006, http://nunatsiaqnews.com/archives/60526/news/climate/60526_03.html.

14. Adam, *supra* note 13, at 12.

15. *Id.*; see also Steve Connor, *Scientists Warn Arctic Sea Ice is Melting at its Fastest Rate Since Records Began*, THE INDEPENDENT (London), Aug. 15, 2007, available at http://news.independent.co.uk/sci_tech/article2864214.ece (discussing the rate at which the arctic sea ice is melting).

16. *Satellites Witness Lowest Arctic Ice Coverage in History*, EUROPEAN SPACE AGENCY, Sept. 14, 2007, available at http://www.esa.int/esaCP/SEMYTC13J6F_index_0.html.

17. *Id.*

18. *Id.*

19. *Id.* The Passage opened again in the summer of 2008. Post of David Biello to 60 Second Science: Scientific American News Blog, *Fabled Northwest Passage Open for Business in the Arctic*, <http://www.scientificamerican.com/blog/60-second-science/post.cfm?id=fabled-northwest-passage-open-for-b-2008-08-27> (Aug. 27, 2008, 15:24 EST).

concerns. The Article argues that the end of the Cold War and the rise of global terrorism have changed the situation in such a way that the Canadian position—that the Northwest Passage constitutes Canadian internal waters subject to the full force of Canadian domestic law—actually coincides with U.S. interests today and the interests of other responsible countries and shipping companies. As a result, the two countries have a unique opportunity—not just to resolve a longstanding dispute but also to cooperate in protecting the security and environment of the continent and planet on which they exist.

We recognize that the United States will not easily be persuaded that Canadian control over the Northwest Passage serves its interests. Consequently, Part XI of this Article sets out a number of intermediate steps—identified through a model negotiation involving teams of U.S. and Canadian non-governmental experts—that the two countries could take to address their common concerns with respect to Northern shipping. These steps, which make sense in-and-of themselves, would build confidence in Canada's commitment to developing the Northwest Passage as a safe and efficient waterway for everyone's benefit.

II. CLIMATE CHANGE AND INTERNATIONAL SHIPPING

Canada's High Arctic is a vast archipelago made up of about 19,000 islands and countless rocks and reefs.²⁰ Baffin Island is larger than Britain,²¹ while Ellesmere and Victoria Islands are nearly as large.²² Between the islands lie a number of possible shipping routes connecting the Atlantic and Arctic Oceans (and later the Pacific Ocean), with the widest and deepest route running from Lancaster Sound through Barrow Strait into Viscount Melville Sound and

20. DONAT PHARAND, CANADA'S ARCTIC WATERS IN INTERNATIONAL LAW 160 (1988).

21. Encyclopaedia Britannica Online, <http://www.britannica.com/eb/article-9116318/Largest-Islands-of-the-World> (last visited Oct. 9, 2009) (entry for "Island"). Baffin Island, in the territory of Nunavut, is the world's fifth largest island at 195,928 square miles. *Id.* At 84,400 square miles, the island of Great Britain is the largest of the British Isles and the eighth largest in the world. *Id.*

22. *Id.* Ellesmere Island, in the territory of Nunavut, is the most northerly of the Canadian Arctic islands and the world's tenth largest island with an area of 75,767 square miles. Encyclopaedia Britannica Online, <http://www.britannica.com/EBchecked/topic/185000/Ellesmere-Island> (last visited Oct. 9, 2009) (entry for "Ellesmere Island"). Straddling the boundary between Nunavut and the Northwest Territories of Canada, Victoria Island is the ninth largest island in the world with an area of 83,897 square miles. Encyclopaedia Britannica Online, <http://www.britannica.com/EBchecked/topic/627741/Victoria-Island> (last visited Oct. 9, 2009) (entry for "Victoria Island").

onwards through M'Clure Strait into the Beaufort Sea.²³ A modification of this route diverts southwest from Viscount Melville Sound through the relatively narrow but deep Prince of Wales Strait.²⁴ Historically, severe ice conditions in M'Clure Strait and Viscount Melville Sound have forced explorers, adventurers, and Coast Guard icebreakers to take a combination of more southerly routes, all of which exit into the Beaufort Sea through Coronation Gulf and Amundsen Gulf, to the south of Victoria and Banks Islands.²⁵ But history is little guide for what is now happening in the North.

It has long been assumed that these more southerly straits and channels are too narrow, shallow, and subject to strong currents to provide a viable route for larger commercial vessels.²⁶ However, underwater mapping conducted from the CCGS *Amundsen* suggests the contrary: With the ice gone, even chokepoints such as Bellot Strait or Fury and Hecla Strait should pose no more of an impediment to navigation than the Bosphorus or Dardanelles.²⁷ From our own anecdotal observations, an experienced navigator could already take a large container ship or tanker through the straits in late summer or early fall. It seems inevitable that the deeper, wider routes further north will eventually open as well, as even M'Clure Strait briefly did in September 2007 and again in September 2008. Once free of ice, these routes could accommodate the largest of ocean-going vessels, including massive supertankers.

At the same time, there are many complicating factors, including the Arctic Oscillation. This circular pattern of atmospheric winds and ocean currents has already pushed the Arctic Ocean's shrinking icepack away from the Russian coast, leaving it seasonally ice-free.²⁸ On the other side of the Arctic Ocean, the pack remains flush against the northwest flank of the Canadian archipelago, with most of the ice being "multi-year ice," which can be more than twenty feet thick and

23. PHARAND, *supra* note 20, at 194–95, 201.

24. *Id.* at 201.

25. *See id.* at 189–201 (describing the main routes of the Northwest Passage).

26. PHARAND, *supra* note 20, at 201.

27. *See generally* Ocean Mapping Group, OMG in ArcticNet, <http://www.omg.unb.ca/Projects/Arctic/index.html> (last visited Oct. 9, 2009) (describing the Canadian Arctic Shelf Exchange Study which studies the effects of ice sea variability in the Arctic).

28. ACIA, *supra* note 10, at 83. The Russian government is promoting those waters—the Northern Sea Route (NSR)—for shipping between Asia and Europe. According to the Arctic Climate Impact Assessment, “for trans-Arctic voyages, the NSR represents up to a 40% savings in distance from northern Europe to northeast Asia and the northwest coast of North America compared to southerly routes via the Suez or Panama Canals.” ACIA, *supra* note 10, at 83. However, a number of factors—ranging from still unpredictable ice conditions to run-down Siberian ports to high transit fees—have discouraged shipping companies from using the route so far.

nearly as hard as concrete due to seasonal accretion of new ice and the gradual leaching out of sea salt.²⁹

A. Climate Change, Science, and Sea-ice

For some time, scientists have differed in their assessments of the likely effects of rising temperatures on ice conditions between Canada's northern islands. Some have predicted that ice conditions will become worse for shipping, at least for the next few decades. As the Arctic Climate Impact Assessment noted:

[R]esults of research at Canada's Institute of Ocean Sciences suggest that the amount of multi-year sea ice moving into the Northwest Passage is controlled by blockages or "ice bridges" in the northern channels and straits of the Canadian Arctic Archipelago. With a warmer arctic climate leading to higher temperatures and a longer melt season, these bridges are likely to be more easily weakened (and likely to be maintained for a shorter period of time each winter) and the flushing or movement of ice through the channels and straits could become more frequent. More multi-year ice and potentially many more

29. ACIA, *supra* note 10, at 24. The Arctic Climate Impact Assessment provides a very useful "ice primer":

Sea-ice is formed as seawater freezes. Because sea-ice is less dense than seawater, it floats on top of the ocean. As sea-ice forms, it rejects the majority of its salt to the ocean, making the ice even lighter. Because sea-ice is formed from existing sea water, its melting does not raise the sea level. Fast ice (or landfast ice) is sea-ice that grows from the coast into the sea, remaining attached to the coast or grounded to a shallow sea floor. It is important as a resting, hunting, and migration platform for species such as polar bears and walrus. It largely disappears during the summer months (July to October). Pack ice refers to a large area of floating sea-ice fragments that are packed together. Ice caps and glaciers are land-based ice, with ice caps "capping" hills and mountains and glaciers usually referring to the ice filling the valleys, although the term glacier is often used to refer to ice caps as well. An ice sheet is a collection of ice caps and glaciers, such as currently found on Greenland and Antarctica. When ice caps, glaciers, and ice sheets melt, they cause the sea level to rise by adding to the amount of water in the oceans. An iceberg is a chunk of ice that calves off a glacier or ice sheet and floats at the ocean surface.

Id.

Other common "ice" terms include shelf ice which is an extension of glacial ice into coastal waters that is in contact with the bottom near the shore but not toward the edge of the shelf. Though permanent, it is not entirely stable and at particular times of the year, the edge of the shelf can break off creating floating islands of ice. Multiyear ice is the thicker sea-ice that has survived at least one summer melt season. In order for the volume of Arctic sea-ice to stay roughly the same from year to year, the multiyear ice that leaves the Arctic—whether pushed by winds or ocean currents or succumbing to summer melt—must be replenished by first-year ice that grows in winter and survives the summer.

icebergs could thus move into the marine routes of the Northwest Passage, presenting additional hazards to navigation.³⁰

The Canadian Ice Service, for its part, has predicted significant yearly variability in sea-ice conditions, even if the Arctic region as a whole experiences an overall reduction in sea-ice extent.³¹ This would make regular navigation along the Northwest Passage difficult and unattractive for the next few decades.³²

Other scientists believe that, as the Arctic Ocean icepack retreats northward, less multi-year ice will make it into the Northwest Passage. Historically, multi-year ice from the Arctic Ocean has been pushed into M'Clure Strait at the western end of the Passage, stymieing even the SS *Manhattan*, a 1,005-foot long ice-strengthened super-tanker that attempted in 1969 to break through M'Clure Strait accompanied by two icebreakers.³³ Yet the southern edge of the icepack is retreating inexorably northwards.³⁴ As soon as it retreats beyond the northern edge of M'Clure Strait, the Northwest Passage could be covered primarily with thinner, softer "single-year ice," which breaks up in late summer and poses little impediment to ice-strengthened vessels.

There is the possibility that the multi-year ice might soon disappear completely. In December 2007, Professor Wieslaw Maslowski of the U.S. Naval Postgraduate School told the American Geophysical Union that a seasonally ice-free Arctic Ocean was

30. *Id.* at 84–85.

31. *Id.* at 84.

32. See, e.g., K.J. Wilson et al., *Shipping in the Canadian Arctic: Other Possible Climate Change Scenarios*, in 3 INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM PROCEEDINGS 1856 (IEEE International ed., 2004), available at http://www.arctic.noaa.gov/detect/KW_IGARSS04_NWP.pdf.

The GCM's [Global Climate Models] predicting an ice-free Arctic by the middle of this century may lead many into a false sense of optimism regarding the ease of future shipping in the Canadian Arctic. Sea ice conditions are highly variable and there will still be summers of occasional heavy ice conditions. Studies using the CIS [Canadian Ice Service] digital ice chart archive are indicating a reduction in FYI [First Year Ice] in the QEI [Queen Elizabeth Islands] allowing more OI [Old Ice] to reach the NWP [Northwest Passage] and a southern shift in the Beaufort Sea pack ice. Future navigation in the NWP may see a blockage of the western NWP routes by the southern shift in pack ice and an increase in drifting OI creating choke points in narrow channels and significant navigation hazards.

Id.

33. See discussion, *infra* Part III.A.

34. David Barber et al., *The Incredible Shrinking Sea Ice*, POLICY OPTIONS, Dec. 2005–Jan. 2006, at 67, available at <http://www.irpp.org/po/archive/dec05/barber.pdf>.

possible as early as 2013.³⁵ The prediction was obtained by adding the factor of heat carried by ocean water into models based on data from 1979-2004.³⁶ The seasonal melting of all the sea-ice would spell the end of multi-year ice, the principal shipping hazard, thus enabling ice-strengthened cargo ships to operate in the Northwest Passage throughout the year. This radical transformation of ice conditions in the Arctic is also discussed in the 2009 Arctic Marine Shipping Assessment (AMSA) Report drafted by the PAME working group of the Arctic Council. The Report states that “[t]here is a possibility of an ice-free Arctic Ocean for a short period in summer perhaps as early as 2015. This would mean the disappearance of multi-year ice, as no sea ice will survive the summer melt season.”³⁷

While short-term predictions vary, nearly all scientists agree that by mid-century the Northwest Passage will be navigable by regular ships for at least part of the year. Governments have been warned to expect an open waterway well before then. In 2001, a report prepared for the U.S. Navy predicted that, “within 5-10 years, the Northwest Passage will be open to non-ice-strengthened vessels for at least one month each summer.”³⁸ For many, an ice-free Northwest Passage is, therefore, only a question of time, and while science aims to establish certainty, good public policy is frequently based on analyses of risk. If there is even a 20% chance that the Passage will be safely navigable for regular cargo vessels within the next few decades, policymakers should be moving quickly to prepare for that eventuality.

B. *Why Ships Will Come*

There is little doubt that the Northwest Passage will become attractive to foreign shipping, for it offers a route between East Asia and the Atlantic seaboard that is 4000 miles shorter than the current route through the Panama Canal—saving time, fuel, and transit fees.³⁹ It could also accommodate super-tankers and container ships that are too large for the Canal.⁴⁰ In the near term, uncertainties

35. Jonathan Amos, *Arctic Summers Ice-Free 'By 2013,'* B.B.C. (San Francisco), Dec. 12, 2007, available at <http://news.bbc.co.uk/2/hi/science/nature/7139797.stm>.

36. *Id.*

37. ARCTIC COUNCIL, ARCTIC MARINE SHIPPING ASSESSMENT 2009 REPORT 4 (2009), available at http://pame.arcticportal.org/images/stories/PDF_Files/AMSA_2009_Report_2nd_print.pdf.

38. OFFICE OF NAVAL OPERATIONS, NAVAL OPERATIONS IN AN ICE-FREE ARCTIC 2 (2001), <http://www.natice.noaa.gov/icefree/Arcticscenario.pdf>.

39. ARCTIC COUNCIL, *supra* note 37, at 44.

40. See David Osborne, *Path Between The Oceans: Tide Turns Against the Panama Canal*, THE INDEPENDENT (London), April 26, 2006, available at <http://www.independent.co.uk/news/world/americas/path-between-the-oceans-tide->

about the weather, availability of search and rescue, and movement of multiyear ice, along with higher insurance premiums, will likely dissuade reputable international shipping companies from using the Northwest Passage. However, less solvent and reputable companies might take the risk, raising the prospect that some of the least safe vessels on the oceans might actually be the first to use the waterway.⁴¹

Franklyn Griffiths argues that ships are more likely to go straight across the Arctic Ocean to the north of Canadian territory.⁴² This is probably accurate for voyages between Asia and Europe or between the west coast of North America and Europe, but going around Greenland adds more than 1000 miles to voyages to or from the east coast of North America.

Three or four foreign cruise ships already traverse the Passage each summer.⁴³ In August 2008, a Danish cable laying ship, the M/V *Peter Faber*, needed to move from a project near Taiwan to another project between Newfoundland and Greenland.⁴⁴ The captain chose the Northwest Passage, sailing through without incident or fanfare.⁴⁵ The deepwater route of the Northwest Passage can also accommodate super-tankers and container ships that are too large for the Panama Canal. More and more ships are being built that exceed the “Panamax” dimensions of 294 meters by 32 meters with a maximum draft of 12 meters (giving rise to a displacement of around 65,000 tons).⁴⁶ The relatively calm waters within the Archipelago will also be attractive. In 1999, a massive Russian dry dock was towed to the Bahamas through the Northwest Passage in order to reduce its exposure to ocean storms.⁴⁷

turns-against-the-panama-canal-475669.html (discussing how some ships are too big for the Panama Canal).

41. Rob Huebert, *The Shipping News Part II: How Canada's Arctic Sovereignty is on Thinning Ice*, 58 INT'L J. 295, 302 (2003). Huebert warns of the “danger posed by smaller and, possibly, more risk-oriented shipping companies” of which there is an “alarmingly high number whose past actions have demonstrated that they are willing to take dangerous chances with ship safety in the pursuit of profit.” *Id.*

42. Franklyn Griffiths, *Canadian Arctic Sovereignty: Time to Take Yes for an Answer on the Northwest Passage*, in NORTHERN EXPOSURE: PEOPLES, POWERS AND PROSPECTS FOR CANADA'S NORTH 1, 14–15 (Frances Abele et al. eds., 2009), available at <http://www.irpp.org/books/archive/AOTS4/griffiths.pdf>.

43. ARCTIC COUNCIL, *supra* note 37, at 78–80.

44. *Capers and Capabilities—While Canadian Leaders Talk About Arctic Sovereignty, Vessels from other Nations Cut Through Arctic Waters*, CAN.-AM. STRATEGIC REV., Aug. 29, 2008, <http://www.casr.ca/as-arctic-sovereignty-capabilities-1.htm>.

45. *Id.*

46. ARCTIC COUNCIL, *supra* note 37, at 72.

47. Huebert, *supra* note 41, at 304–05; Alanna Mitchell, *The Northwest Passage Thawed*, GLOBE & MAIL (Toronto), Feb. 5, 2000, at A11.

More shipping is also being generated by the increased commercial activity in Canada's Arctic. In 2007, mining companies spent \$330 million in Nunavut in pursuit of gold, diamonds, uranium, and other minerals.⁴⁸ On northern Baffin Island, the Mary River iron-ore mine is under development and already has hundreds of employees.⁴⁹ With 365 million tons of proven and probable reserves, it is projected to produce 18 million tons per year for the next quarter of a century.⁵⁰ The high quality ore will be shipped directly to Europe on a fleet of 300 meter-long ice-strengthened ships purpose-built in Finland and capable of operating in Foxe Basin, Nunavut, throughout the year.⁵¹

In the mineral-rich Kitikmeot region of western Nunavut, six mining companies—including giants Rio Tinto and De Beers—have joined together in support of the Bathurst Inlet Port and Road Project.⁵² The proposed port would be able to accommodate ships as large as 25,000 tons.⁵³ Linked to a 211 kilometer all-weather road, it would enable the companies to bring heavy equipment into their mines and ship the extracted ore out to the market.⁵⁴ It would also increase traffic in the Northwest Passage since Bathurst Inlet is on Coronation Gulf, which is part of the southern route of the waterway.⁵⁵

In September 2008, the MV *Camilla Desgagnés*, an ice-strengthened cargo ship, made a scheduled resupply run from

48. *Number of Nunavut Prospecting Permits Drops This Year*, CAN. BROADCASTING CENTRE., Feb. 3, 2009, available at <http://www.cbc.ca/canada/north/story/2009/02/03/nunavut-permits.html>.

49. Andy Hoffman, *Baffinland Confirms Vast Iron Ore Play*, GLOBE & MAIL (Toronto), Feb. 20, 2008 at B.5; Interview with Arthur Yan (Legal Coordinator) and Other Officials at Nunavut Tunngavik Inc., in Iqaluit, Can. (Feb. 20, 2008).

50. Hoffman, *supra* note 49, at B.5.

51. BAFFINLAND IRON MINES CORP., DEVELOPMENT PROPOSAL FOR THE MARY RIVER PROJECT 57–58, 60 (2008) (discussing shipping and operations); *Arctic-Class Capesize Ships*, THE FEDNAV CURRENT (Montreal, Can.), Dec. 2007, at 1, http://www.fednav.com/anglais/the_fednav_current.html (describing details of the ships).

52. See Bathurst Inlet Port and Road Venture (BIPR) Project, <http://www.nunalogistics.com/projects/clients/bathurst/index.html> (last visited Oct. 16, 2009) (showing a client list for the project).

53. Bob Weber, *Arctic Port Gathers Steam*, TORONTO STAR, July 4, 2007, available at <http://www.thestar.com/Business/article/232201>.

54. Bathurst Inlet Port and Road Venture (BIPR) Project, *supra* note 52.

55. ARCTIC COUNCIL, *supra* note 37, at 20–21 (describing Coronation Gulf as a favorable transit route). For a map showing the location of Bathurst Inlet within Coronation Gulf and a discussions of the environmental effects of the Bathurst Inlet Port and Road Project, see Hadi Dowlatabadi et al., *Bridging the Gap Between Project-Level Assessments and Regional Development Dynamics: A Methodology for Estimating Cumulative Effects*, in RESEARCH AND DEVELOPMENT MONOGRAPH SERIES 2003 § 3.1, fig.6, http://www.ceaa-acee.gc.ca/015/001/032/print-version_e.htm.

Montreal to four communities in western Nunavut.⁵⁶ The crew reported seeing no ice in the Northwest Passage.⁵⁷ Desgagnés Transarctik Inc. the company that owns the ship, and Nunavut Eastern Arctic Shipping, its main competitor, have similar voyages planned for 2009.⁵⁸

Increased shipping can also be expected to result from easier access to Arctic hydrocarbons. All of the Arctic Ocean countries—Canada, Denmark, Norway, Russia, and the United States—have mapped or are mapping the seabed off their coastlines in support of claims to extended continental shelves under Article 76 of the UN Convention on the Law of the Sea.⁵⁹ The U.S. Coastguard research icebreaker USCGC *Healy* spent the summers of 2007 and 2008 mapping the Chukchi Cap, north of Alaska, in anticipation of the U.S. Senate giving its “advice and consent” to ratification of the United Nations Convention on the Law of the Sea (UNCLOS).⁶⁰

The mapping has taken on heightened urgency as the result of a U.S. Geological Survey (USGS) International Polar Year project, conducted with the participation of British Petroleum and Statoil, a Norwegian company, to assess the oil and gas resource potential of the Arctic.⁶¹ In its CircumArctic Resource Appraisal (CARA), published in May of 2009, USGS researchers concluded that the Arctic contained about 13% of the world’s undiscovered oil and 30% of the world’s undiscovered gas, mostly offshore, under less than 500

56. *1st Commercial Ship Sails Through the Northwest Passage*, CAN. BROADCASTING CORPORATION, Nov. 28, 2008, <http://www.cbc.ca/canada/north/story/2008/11/28/nwest-vessel.html>.

57. *Id.*

58. Bob Weber, *Thinning Ice Already Increasing Traffic in Northwest Passage*, THE GLOBE AND MAIL (Toronto), June 14, 2009, available at <http://www.theglobeandmail.com/news/technology/science/thinning-ice-already-increasing-traffic-in-northwest-passage/article1181733/>.

59. See United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, art. 76, available at http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm [hereinafter UNCLOS] (provides the definition of a continental shelf); see also Constance Johnson & Alex Oude Elferink, *Submissions to the Commission on the Limits of the Continental Shelf in Cases of Unresolved Land and Maritime Disputes: The Significance of Article 76(10) of the Convention on the Law of the Sea*, in THE LAW OF THE SEA: PROGRESS AND PROSPECTS 161–79 (David Freestone, R. Barnes & D.M. Ong eds., 2006) (summarizing recommendations of the Commission on the limits of the continental shelf in regard to the submission made by the Russian Federation on 20 December 2001 and the submission made by Norway on 27 November 2006).

60. Robert Lee Hotz, *U.S. Draws Map Of Rich Arctic Floor Ahead of Big Melt*, WALL ST. J., Aug. 31, 2007, at B1.

61. See International Polar Year, U.S. Geological Survey, Expressions of Intent for IPY 2007-2008 Activities, I.D. No. 913, <http://classic.ipy.org/development/eoi/details.php?id=913> (last visited Oct. 9, 2009) (explaining that international partners for the activities of the U.S. Geological Survey in the International Polar Year included British Petroleum and Statoil).

meters of water.⁶² All the major oil companies will be looking at the Northwest Passage as a potentially important shipping route in support of their activities in the Arctic—just as Humble Oil (now Exxon) did with the *Manhattan* in 1969.⁶³ Royal Dutch Shell has already commissioned an analysis of the legal status of the waterway.⁶⁴

Finally, there are the “adventurers”: men and women seeking to relive the exploits of the early explorers by sailing small private vessels through the Northwest Passage.⁶⁵ In August 2007, the Royal Canadian Mounted Police (RCMP) arrested five Norwegians intent on challenging Canada’s authority over the waterway.⁶⁶ The self-designated “Vikings” sailed their yacht, the *Berserk II*, three-quarters of the way through the waterway without seeking permission.⁶⁷ Fortunately, authorities had deported two members of the crew from Canada on a previous occasion for reasons unrelated to Arctic sovereignty (membership in the Norwegian branch of the Hells Angels motorcycle gang).⁶⁸ These two individuals made the mistake of disembarking from the yacht and setting foot on indisputably sovereign Canadian soil just outside Cambridge Bay, Nunavut.⁶⁹ At this point, the RCMP pounced, assisted by a Canadian Coast Guard light icebreaker, the CCGS *Sir Wilfrid Laurier*.⁷⁰ But what if the Norwegians had not set foot on Canadian soil? What if, instead of a small yacht, the vessel was a single-hulled oil tanker flying a flag of

62. Donald L. Gautier et al., *Assessment of Undiscovered Oil and Gas in the Arctic*, 324 SCIENCE 1175, 1175 (2009).

63. DONAT PHARAND, NORTHWEST PASSAGE: ARCTIC STRAITS 47 (1984).

[O]il companies began to consider the possibility of using the Northwest Passage to transport oil to the American eastern seaboard. Consequently, in 1969 Humble Oil (now Exxon USA) had the *S/T Manhattan*, a huge 155,000-ton tanker, converted into an icebreaking vessel and sent through the Northwest Passage to determine the feasibility of year-round navigation.

Id.

64. This information was obtained through confidential interviews conducted by the authors.

65. See Sara Minogue, *Rites of Passage Thwart Northern Adventurers*, THE GLOBE AND MAIL (Toronto), Sept. 8, 2007, at A14, available at <http://www.saraminogue.com/stories/rites.html> (providing accounts of sailors that are failing to register).

66. For a partial report of the incident, see Bill Curry, *Viking Invaders Turned Back from Our Shores*, THE GLOBE AND MAIL (Toronto), Sept. 1, 2007, at A3. Coincidentally, one of the authors of this article (Byers) was in Cambridge Bay the day after the arrests and able to interview local officials “off-the-record.”

67. *Id.*

68. *Id.*

69. *Id.*

70. See Byers & Layton, *How to Strengthen Our Arctic Security*, THE TYEE, Sept. 6, 2007, available at <http://thetyee.ca/Views/2007/09/06/ColdReality/> (discussing how the CCGS *Sir Wilfrid Laurier* helped RCMP with the arrest of five Norwegians).

convenience or a container ship with possible links to North Korea, Iran, or Al-Qaeda? The next Parts of this Article examine the difficult question of national jurisdiction within the Northwest Passage to deal with environmental or security threats.

III. THE LEGAL DISPUTE: 1880-1985

Ownership is not an issue with regard to the islands of the Arctic archipelago,⁷¹ which Britain assigned to Canada in 1880.⁷² The resulting title has not been contested since Denmark abandoned its claim to Ellesmere Island in 1920 and Norway abandoned its claim to the Sverdrup Islands in 1928–1930.⁷³ The only exception has been an inconsequential dispute with Denmark over Hans Island, a tiny, barren islet between Ellesmere Island and northern Greenland in the middle of Kennedy Channel, more than 500 miles to the north of Lancaster Sound (the principal eastern entrance to the Northwest Passage).⁷⁴

A. *The Sector Theory*

As for the Northwest Passage itself, the nearly impenetrable ice meant that the issue of ownership and control of the waterway was, for decades, never even discussed.⁷⁵ At most, a claim to the Arctic waters was implicit in an assertion made in 1907 by Canadian Senator Pascal Poirier that Canada owned everything within a pie-shaped sector extending from the continental coastline to the geographic North Pole.⁷⁶ The same perception of Canada's Arctic

71. N.C. Howson, *Breaking the Ice: The Canadian-American Dispute over the Arctic's Northwest Passage*, 26 COLUM. J. TRANSNAT'L L. 337, 346 (1988). According to Howson, "[n]o nation, including the United States, challenges Canada's territorial sovereignty over the ice-covered islands of the Arctic archipelago." *Id.*

72. For a historical account of Canada's Arctic sovereignty, see Ivan L. Head, *Canadian Claims to Territorial Sovereignty in the Arctic Regions*, 9 MCGILL L.J. 200 (1963). By an Order-in-Council dated 31 July 1880, "... all the British possessions on the American continent, not hitherto annexed to any colony ..." were transferred to Canada. *Id.* at 212.

73. R.R. Roth, *Sovereignty and Jurisdiction Over Arctic Waters* 28 ALTA L.REV. 845, 851 (1990).

74. Kenn Harper, Hans Island Resources, <http://www.canadiangeographic.ca/hansIsland/default.asp> (last visited Oct. 9, 2009).

75. Head, *supra* note 72 at 218. In 1963, Ivan Head, then at the Canadian Department of External Affairs, wrote: "It is highly unlikely that uninterrupted surface passage from the Labrador Sea to either the Arctic Ocean or the Beaufort Sea, or vice versa, will ever be a reality." *Id.*

76. Robert S. Reid, *The Canadian Claim to Sovereignty Over the Waters of the Arctic*, [1974] 12 CAN. Y.B. INT'L L. 111, 115. Reid reports that the first official manifestation of the sector theory was a 1904 Canadian Department of the Interior

sovereignty was shared by Canadian explorer Captain J.E. Bernier,⁷⁷ who, on July 1, 1909, affixed a plaque on Melville Island that reads:

This Memorial is erected today to commemorate the taking possession for the DOMINION OF CANADA of the whole ARCTIC ARCHIPELAGO lying to the north of America from longitude 60°W. to 141°W. up to latitude 90°N.⁷⁸

In 1946, Lester B. Pearson, then Canada's ambassador to the United States, made the claim over water explicit by declaring that the sector theory justified Canada's claims "not only to the land within the sector, but to the frozen sea as well."⁷⁹ However, subsequent government pronouncements cast doubt on Canada's reliance on the sector theory as a basis for its claims.⁸⁰

Nor has the applicability of the sector theory to Arctic waters ever been accepted internationally. When Norway recognized Canada's sovereignty over the Sverdrup Islands in 1930, it specified that the move was "in no way based on any sanction whatever of what is named 'the sector principle.'"⁸¹ When the Soviet Union used the sector theory to define its Arctic territory in 1926, it chose not to apply the theory to the ice or waters beyond the then three-mile limit of the territorial sea.⁸² The same is true in the Antarctic, where a number of countries have claimed sectors of the continent but not the outlying waters or seabed.⁸³

Faced with international opposition to its sector-based claim, the Canadian government for decades chose to neither advance nor

map showing "the western boundary of Canada as being the 141st meridian of west longitude extending to the Pole, and the eastern boundary as being the 60th meridian of west longitude extending from just east of Ellesmere Island northerly to the Pole." *Id.*

77. Donald R. Rothwell, *The Canadian-U.S. Northwest Passage Dispute: A Reassessment*, 26 CORNELL INT'L L.J. 331, 336 (1993).

78. I HOUSE OF COMMONS DEBATES 1730 (Jul. 10, 1909) (Can.) (inscription by J.E. Bernier), *reprinted in* Head, *supra* note 72, at 211.

79. Lester B. Pearson, *Canada Looks Down North*, 24 FOREIGN AFF. 638, 639 (1946); *see also* Reid, *supra* note 76, at 115.

80. For example, see III HOUSE OF COMMONS DEBATES 6958 (August 3, 1956) (Can.) (statement of Hon. Jean Lesage). Lesage was the minister of the newly created Department of Northern Affairs.

81. Note from Daniel Steen, The Norwegian Chargé d'Affaires, London, to Arthur Henderson, Secretary of State for Foreign Affairs, London (Aug. 8, 1930), *available at* <http://byers.typepad.com/arctic/1930.html>.

82. Reid, *supra* note 76, at 116. Donat Pharand writes: "[T]he general opinion of publicists and informed commentators is that the sector theory has no legal validity as a source of title in international law, and cannot serve as a legal basis for the acquisition of sovereignty over land, and, a fortiori, over sea areas." Donat Pharand, *Canada's Arctic Jurisdiction in International Law*, 7 DALHOUSIE L.J. 315, 324 (1983).

83. Stuart B. Kaye, *Territorial Sea Baselines Along Ice Covered Coasts: International Practice and Limits of the Law of the Sea*, 35 OCEAN DEV. & INT'L L. 75, 79 (2004).

explicitly abandon the argument. In August 2006, however, Prime Minister Stephen Harper surrendered the sector theory in a speech in Iqaluit, Nunavut:

I am here today to make it absolutely clear there is no question about Canada's Arctic border. It extends from the northern tip of Labrador all the way up the East coast of Ellesmere Island to Alert. Then it traces the western perimeter of the Queen Elizabeth Islands down to the Beaufort Sea. From there it hugs the coasts of the Northwest Territories and Yukon to the Canada-U.S. border at Alaska. All along the border, our jurisdiction extends outward 200 miles into the surrounding sea, just as it does along our Atlantic and Pacific coastlines. No more. And no less.⁸⁴

As defined by Harper, the limits of Canada's jurisdiction along the northwest flank of the Arctic Archipelago fall hundreds of miles short of the 141st meridian.

B. *The SS Manhattan*

In 1969, an American company, Humble Oil, sent an ice-strengthened super-tanker—the SS *Manhattan*—through the Northwest Passage.⁸⁵ The voyage was designed to test whether the route could be used to transport Alaskan oil to the Atlantic seaboard.⁸⁶ The U.S. government dispatched the Coastguard icebreaker *Northwind* to accompany the vessel and made a point of not seeking permission from Canada.⁸⁷ The Canadian government responded by granting permission anyway.⁸⁸ It sent one of its own

84. Stephen Harper, Can. Prime Minister, Speech on Securing Canadian Sovereignty in the Arctic (Aug. 12, 2006), available at <http://byers.typepad.com/arctic/2009/03/securing-canadian-sovereignty-in-the-arctic.html>.

85. T.C. Pullen & H. Ian MacDonald, S.S. Manhattan's Northwest Passage Voyage—Observations by Canada's Representative (Feb. 12, 1970), transcribed in THE EMPIRE CLUB OF CANADA ADDRESSES 260 (1970), available at <http://speeches.empireclub.org/details.asp?r=vs&ID=61281&number=1>.

86. *Id.* The ship sailed on August 24, 1969, and completed navigation of the Passage on September 14, 1969. Reid, *supra* note 76, at 111 n.1. The Manhattan was specially modified into an ice-breaking vessel of 115,000 tons and 43,000 horsepower. *Id.* Built in 1962, it was at the time the largest merchant ship ever to fly the American flag and the largest commercial ship ever constructed in the United States. *Id.* “The Manhattan . . . was as long as the Empire State building laid on its side and displaced about twice the amount of water as the Queen Elizabeth.” Larry Gedney & Merritt Helfferich, *Voyage of the Manhattan*, Dec. 19, 1983, Alaska Science Forum Article No. 639, <http://www.gi.alaska.edu/ScienceForum/ASF6/689.html>. For an account of the Manhattan's voyage, see Bern Keating, *North for Oil: Manhattan Makes the Historic Northwest Passage*, 137 NAT'L GEOGRAPHIC 374 (1970).

87. J. ASHLEY ROACH & ROBERT W. SMITH, UNITED STATES RESPONSES TO EXCESSIVE MARITIME CLAIMS 339 (1996).

88. See Pullen & MacDonald, *supra* note 85 (Canadian government representative remarks imply that permission was given).

icebreakers to help⁸⁹ and arranged for a Canadian government representative, Captain Thomas Charles Pullen, to be on board the *Manhattan* during the transit.⁹⁰

Although Washington's refusal to ask for prior authorization unleashed a political storm in Ottawa, the firm belief that the *Manhattan* would not sail through areas under Canadian jurisdiction was the basis for the refusal.⁹¹ At the time, Canada claimed only a 3-mile territorial sea, which left a high seas corridor through the Northwest Passage.⁹² American officials had therefore intended that the *Manhattan* would remain on the high seas throughout its voyage, entering the Passage through Lancaster Sound and exiting through M'Clure Strait at the western end.⁹³ Indeed, prior to the *Manhattan's* voyage, the State Department had informed the Canadian government that it had no intention of staking a claim to the Northwest Passage and was merely undertaking a feasibility study.⁹⁴ However, on the night of September 10, 1969, while attempting to become the first vessel ever to make an east-to-west passage of M'Clure Strait, the *Manhattan* became trapped in the ice.⁹⁵ "She escaped only when steam was diverted from heating the living spaces to squeeze an additional 7,000 horsepower from her 43,000 horsepower turbines. Even then, it was only with the assistance of her constant companion, the Canadian icebreaker, 'John A. McDonald,' that she was able to escape."⁹⁶ These circumstances forced the *Manhattan* to turn back and use the narrow Prince of Wales Strait, where, as Pharand explains, "it had to go through the territorial waters of Canada because of the presence of the small

89. *Id.* The accompanying Canadian Coast Guard vessel was the *J.A. Macdonald*, a heavy icebreaker built in 1960 with a cruising range of 20,000 nautical miles and a displacement of 9,000 tons. *Id.* According to the New York Times: "The 'Johnny Mac', as the vessel is called by the crew of the *Manhattan*, started out on the expedition as just another member of the supporting cast, but she earned co-star status by her performance on the voyage. The sturdy veteran of 10 seasons in the Arctic freed the *Manhattan* from ice on at least 12 occasions." W.D. Smith, *Tanker Manhattan is Escorted Into Halifax Harbor*, N.Y. TIMES, Nov. 9, 1969.

90. Pullen & MacDonald, *supra* note 86. Captain Pullen played a critical role throughout the voyage, "advising Humble Oil on matters of ice navigation, ice seamanship, route selection and tactics appropriate to ships working as a group in heavy pack ice." *Id.*

91. See John Kirton & Don Munton, *The Manhattan Voyages and Their Aftermath*, in *POLITICS OF THE NORTHWEST PASSAGE* 73, 73-97 (Franklyn Griffiths ed., 1987) (chronicling Ottawa's response to the *Manhattan* voyage).

92. Reid, *supra* note 76, at 120.

93. *Id.*

94. Jay Walz, *Oil Stirs Concern Over Northwest Passage Jurisdiction*, N.Y. TIMES, Mar. 15, 1969, at 12.

95. Gedney & Helfferich, *supra* note 86.

96. *Id.*

Princess Royal Islands.”⁹⁷ The unanticipated character of the entrance into Canadian territorial waters, combined with Canada’s unsolicited permission, the acceptance of considerable assistance from the Canadian Coast Guard, and the welcoming of Captain Pullen on board prevented—as Ottawa later argued—any undermining of Canada’s claim.⁹⁸

C. Arctic Waters Pollution Prevention Act

The following year, the Canadian Parliament adopted the Arctic Waters Pollution Prevention Act (AWPPA).⁹⁹ The legislation imposed strict safety and environmental requirements on all shipping within 100 nautical miles of Canada’s Arctic coast, including the islands.¹⁰⁰ The AWPPA was, at the time, contrary to international law, which did not recognize coastal state rights in the waters beyond the territorial sea.¹⁰¹ Indeed, the Canadian government effectively admitted that the AWPPA was illegal when, shortly before adopting the statute, it entered a reservation to its acceptance of the compulsory jurisdiction of the International Court of Justice (ICJ) that prevented any future litigation over the matter.¹⁰² The United

97. Donat Pharand, *The Arctic Waters and the Northwest Passage: A Final Revisit*, 38 OCEAN DEV. & INT’L L. 3, 38 (2007).

98. Kirton & Munton, *supra* note 91 (discussing the diplomatic response to these voyages).

99. Arctic Waters Pollution Prevention Act, R.S.C. ch. 2 (1970), amended by S.C. ch. 41 (1977–78) (Can.).

100. R.S.C. ch.2. With the AWPPA, Canada was asserting a right to enforce pollution prevention regulations on all ships passing through the 100 mile zone, including construction, equipment and staffing standards for Arctic-going vessels. *Id.* Failure to comply with these standards would result in the prohibition of passage. *Id.* Under the Act, this broad assertion of jurisdiction was justified with reference to Canada’s responsibility for the exploitation of the Arctic’s resources as well as for the welfare of its inhabitants and the preservation of its unique ecological balance. *Id.*

101. Coastal rights beyond the territorial sea were recognized, however, as regards the continental shelf.

102. *Texts Governing the Jurisdiction of the Court*, 24 INT’L CT. JUST. Y.B. 45, 55–56 (1969–70). The reservation excluded from the Court’s compulsory jurisdiction over Canada any

disputes arising out of or concerning jurisdiction or rights claimed or exercised by Canada in respect of the conservation, management or exploitation of the living resources of the sea, or in respect of the prevention or control of pollution or contamination of the marine environment in marine areas adjacent to the coast of Canada.

Id. In explaining the need for the reservation, Prime Minister Pierre Trudeau acknowledged that there was a “very grave risk that the World Court would find itself obliged to find that coastal states cannot take steps to prevent pollution. Such a legalistic decision would set back immeasurably the development of law in this critical area.” Pierre Trudeau, Prime Minister Can., Press Speech (Apr. 8, 1970), *quoted in*

States responded to the legislation by sending a diplomatic note entitled “U.S. Opposes Unilateral Extension by Canada of High Seas Jurisdiction.”¹⁰³ The note explained the reason for the United States’ position as follows:

We are concerned that this action by Canada if not opposed by us, would be taken as precedent in other parts of the world for other unilateral infringements of the freedom of the seas. If Canada had the right to claim and exercise exclusive pollution and resources jurisdiction on the high seas, other countries could assert the right to exercise jurisdiction for other purposes, some reasonable and some not, but equally invalid according to international law.¹⁰⁴

The United States suggested that Canada voluntarily submit the issue to the ICJ,¹⁰⁵ but Canada refused to do so.¹⁰⁶

The dispute over the AWPPA receded after the 1982 adoption of the United Nations Convention on the Law of the Sea, Article 234 of which allows coastal states to enact laws against maritime pollution out to 200 nautical miles when almost year-round ice creates exceptional navigational hazards.¹⁰⁷ The adoption of this provision also contributed to the development of a parallel rule of customary international law, as Canada effectively recognized when it rescinded the reservation to its acceptance of the compulsory jurisdiction of the ICJ in 1985—nine years before UNCLOS came into force and a full eighteen years before Canada ratified the treaty.¹⁰⁸ In the following two decades, no one challenged Canada before the ICJ about the AWPPA or any of its other Arctic-related claims. On June 11, 2009, Canada took full advantage of Article 234 by extending the reach of the AWPPA to 200 nautical miles.¹⁰⁹

Richard Bilder, *The Canadian Arctic Waters Pollution Prevention Act: New Stresses on the Law of the Sea*, 69 MICH. L. REV. 1, 29 (1970–1971).

103. Press Release, U.S. Dep’t of State, Press Release No. 121 (Apr. 15, 1970), quoted in J.A. Beesley & C.B. Bourne, *Canadian Practice in International Law During 1970 as Reflected Mainly in Public Correspondence and Statements of the Department of External Affairs*, [1971] 9 CAN. Y.B. INT’L L. 276, 287–88.

104. *Id.* In 1978, a Canadian official acknowledged that a “drawer full of protests” had been received concerning the AWPPA. Comments of Erik Wang, Dir. of Legal Operations, Dep’t of External Affairs, Can., House of Commons, Standing Comm. on External Affairs and Nat’l Def., *Proceedings*, No. 16 (Apr. 27, 1978), quoted in Ted McDorman, *The New Definition of ‘Canada Lands’ and the Determination of the Outer Limit of the Continental Shelf*, 14 J. MAR. L. & COM. 195, 215 (1983).

105. Press Release, U.S. Dep’t of State, *supra* note 102, at 289.

106. Beesley & Bourne, *supra* note 103, at 289–94.

107. UNCLOS, *supra* note 59, art. 234.

108. See *Texts Governing the Jurisdiction of the Court*, *supra* note 103, at 64 (terminating Canada’s acceptance “of the compulsory jurisdiction of the International Court of Justice”).

109. Randy Boswell, *New Measures Beef Up Control of Arctic: Expert Canadian Authority Over Shipping Extended*, OTTAWA CITIZEN, June 19, 2009, available at

A second piece of legislation, also adopted in 1970, extended Canada's territorial sea from three to twelve nautical miles.¹¹⁰ Although the United States also officially protested against this measure,¹¹¹ the extension of Canada's territorial sea to twelve miles was far less controversial than the AWPPA since sixty other countries had already made similar claims.¹¹² Its immediate relevance lay in the fact that the Northwest Passage is less than twenty-four miles across at its narrowest points.¹¹³ It thus became impossible to travel through the Passage, as the captain of the *Manhattan* had planned, without passing through Canada's territorial sea at certain geographical choke-points.¹¹⁴ "According to the Canadian government, the newly overlapping territorial seas entitled it to subject any transiting vessel to the full range of Canada's domestic laws."¹¹⁵

<http://www.canada.com/Technology/measures+beef+control+Arctic+expert/1710976/story.html>.

110. Act to Amend the Territorial Sea and Fishing Zones Act, 1969-1970 S.C., ch. 68, sec. 1243 (Can.).

111. The April 15, 1970 diplomatic note entitled "U.S. Opposes Unilateral Extension by Canada of High Seas Jurisdiction" "attacked both extensions: the first, from three to twelve miles for the territorial sea, and the second, over all shipping in the Arctic waters for one hundred miles." Howson, *supra* note 71, at 352 n.72 (citation omitted). Howson's interpretation seems to be borne out by the use of the plural in the first sentence of the diplomatic note: "International law provides no basis for *these* proposed unilateral *extensions* of jurisdiction on the high seas . . ." Press Release, U.S. Dep't of State, *supra* note 103, at 288 (emphasis added).

112. Pierre Trudeau, Prime Minister Can., Remarks to the Press Following the Introduction of Legislation on Arctic Pollution, Territorial Sea and Fishing Zones in the Canadian House of Commons (April 8, 1970), *in* 9 I.L.M. 600 (1970). The right to a twelve-mile territorial sea was eventually codified in Article 3 of UNCLOS. UNCLOS, *supra*, note 59, art. 3.

113. Kirton & Munton, *supra* note 91, at 73.

114. Howson writes:

The 1970 Bill extending Canada's territorial sea from 3 to 12 miles . . . was designed in part to create an overlap of territorial waters in the Western portion of Barrow Strait, where the widest gap of sea between islands dotted across the strait (Lowther and Young Islands) is only 15.5 miles. This 'gate' of territorial waters already existed under the 3 mile rule in the Prince of Wales Strait, where the Princess Royal Islands, similarly dotted across the much narrower strait, reduce the widest gap to less than 6 miles.

Howson, *supra* note 71, at 355-56 n.86. Since Bellot Strait is less than one mile across, the addition of a gate in the Barrow Strait had the effect of forcing any vessel making the passage, including through M'Clure Strait, to enter Canada's territorial sea.

115. *Id.* at 10. In 1970, the legal advisor for the Canadian Department of External Affairs declared in testimony before the House of Commons Standing Committee on External Affairs and National Defence:

[The enactment of a 12-mile limit] has implications for Barrow Strait, for example, where the 12-mile territorial sea has the effect of giving Canada sovereignty from shore to shore. To put it simply, we have undisputed control—

D. Historic International Waters

At the same time, Canada began arguing that the straits and channels between the islands were historic internal waters. Under international law, a country may validly claim title over waters on historic grounds if it can show that it has, for a considerable length of time, effectively exercised its exclusive authority over the maritime area in question.¹¹⁶ In addition, it must show that, during the same

undisputed in the legal sense—over two of the gateways to the Northwest Passage.

Standing Comm. on External Affairs and National Defence, *Minutes of Proceedings and Evidence*, No. 25, at 18 (statement of the legal adviser of the Department of External Affairs), *quoted in* PHARAND, *supra* note 20, at 124.

116. The first official statement indicating that Canada might be claiming the waters of the Canadian Arctic Archipelago as historic internal waters, according to Pharand, was made by Prime Minister Trudeau at the time of the Manhattan crossing in October 1969. PHARAND, *supra* note 20, at 111. The statement, included in a Speech from the Throne, read in part:

Canadian activities in the northern reaches of this continent have been far-flung but pronounced for many years, to the exclusion of the activities of any other government. The Royal Canadian Mounted Police patrols and administers justice in these regions on land and ice, in the air and *in the waters*.

I HOUSE OF COMMONS DEBATES 39 (Oct. 24, 1969) (Can.), *quoted in* PHARAND, *supra* note 20, at 111 (emphasis added in PHARAND). Pharand states:

Having specified that the Canadian Eskimos pursue ‘their activities over the icy waters without heed as to whether that ice is *supported* by land or *by water*’, the statement emphasizes the long duration of those activities and concludes by saying that ‘Arctic North America has, for 450 years, progressively become the Canadian Arctic.’

PHARAND, *supra* note 20, at 111. Pharand also refers to a December 1969 report prepared for the House of Commons by the Standing Committee on Indian Affairs and Northern Development in which it was stated: “Your Committee considers that the waters lying between the islands of the Arctic Archipelago have been, and are, subject to Canadian sovereignty *historically*, geographically and geologically.” *Id.* In December 1973, an official of the Canadian Department of External Affairs replied to a letter enquiring as to the legal status of the Arctic waters, declaring that “Canada . . . claims that the waters of the Canadian Arctic Archipelago are internal waters of Canada, *on a historical basis*, although they have not been declared as such in any treaty or by any legislation.” Edward G. Lee, *Canadian Practice in International Law During 1973 as Reflected Mainly in Public Correspondence and Statements of the Department of External Affairs*, 12 CAN Y.B. INT’L L. 272, 279 (1974) (emphasis added). Pharand comments that “[t]his unquestionably constitutes the clearest and most precise statement as to the nature of and basis for Canada’s claim over Arctic waters.” PHARAND, *supra* note 20, at 112. For an example of a country claiming title over waters on historical grounds, *see, e.g.*, Fisheries Case (U.K. v. Nor.), 1951 I.C.J. 116, 130–31 (Dec. 18) (holding Norway may claim waters as historic based on their exclusive authority of control and acquiescence of foreign states over the control). *See generally* CLIVE R. SYMMONS, HISTORIC WATERS IN THE LAW OF THE SEA: A MODERN REAPPRAISAL (2008) (examining the role of historic waters in international law); Donat

period of time, other countries, especially those directly affected by the exercise of authority, have acquiesced in it.¹¹⁷

Hudson Bay is a good example. Canada has claimed its 450,000 square mile expanse of water as a “historic bay” since 1906.¹¹⁸ The United States initially filed a protest, but for more than a century, no country has publicly opposed the claim.¹¹⁹ It would not be in the U.S. national interest to lodge public opposition, since shipping traffic through Hudson Bay does not lead anywhere except the port of Churchill, Manitoba. Moreover, James Bay—at the southern end of Hudson Bay—extends to within 1,000 miles of Chicago, Detroit, and New York City, putting those cities within easy reach of ship-launched cruise missiles. However, thanks to Hudson Bay’s status as historic internal waters, Canada, in concert with the North Atlantic Treaty Organization (NATO) and the North American Aerospace Defense Command (NORAD), can legitimately deny access to warships of non-allies.¹²⁰

Canada’s claim that the Northwest Passage constitutes historic internal waters is based on the fact that British explorers mapped the archipelago prior to the transfer of title in 1880,¹²¹ and Canadians patrolled and policed it after that date.¹²² Canadian involvement in

Pharand, *Historic Waters in International Law with Special Reference to the Arctic*, 21 U. TORONTO L.J. 1 (1971) (same).

117. See Fisheries Case, 1951 I.C.J. at 116 at 130–31 (Norway was able to claim waters partially due to acquiescence of foreign states over control); see generally *Historic Waters*, *supra* note 116 (explaining concept of historic waters); SYMMONS, *supra* note 116 (same).

118. OFFICE OF OCEAN AFFAIRS, LIMITS IN THE SEAS NO. 112: UNITED STATES RESPONSES TO EXCESSIVE NATIONAL MARITIME CLAIMS 10 (1992), available at <http://www.state.gov/documents/organization/58381.pdf>.

119. An Act to Amend the Fisheries Act, 1906 S.C., ch. 13 (Can.); OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 10.

120. JOHN O’BRIEN, INTERNATIONAL LAW 440 (2001); see also R.R. CHURCHILL & A.V. LOWE, THE LAW OF THE SEA 36–38 (3d ed. 1999) (provides a description of historic bays).

121. According to Pharand, “British explorers, beginning with Martin Frobisher in 1576 and ending with those in search of the Franklin expedition in 1859, covered virtually all the waters of the Canadian Arctic Archipelago.” PHARAND, *supra* note 20, at 113.

122. Pharand provides a useful summary of Canadian activity in his book CANADA’S ARCTIC WATERS IN INTERNATIONAL LAW at Chapter 8 (“Historic waters applied to the Canadian Arctic Archipelago”). PHARAND, *supra* note 20, at 122. In 1906, Canada adopted legislation requiring whalers to obtain licences for Hudson Bay and the waters north of the 50th parallel. *Id.* “In 1922, the Eastern Arctic Patrol was created and annual patrols were made until at least 1958.” *Id.* These patrols, for the most part carried out by the RCMP, occasionally extended to the waters of the western Arctic. *Id.* In 1926, the Arctic Islands Preserve was created within the sector formed by the 60th and 141st degrees of longitude with the aim of protecting Arctic wildlife and Inuit culture. *Id.* After World War II, the Canadian Coast Guard was established and charged with the principal tasks of providing icebreaking services and re-supplying Arctic communities. *Id.* Since 1970, Canadian survey ships have been active in

Northwest Passage transits can also be cited as evidence of Canada's authority over the waterway.¹²³

However, even if Canada has effectively exercised its exclusive authority over the maritime area claimed, it still has to satisfy the acquiescence criterion.¹²⁴ Pharand considers this to be a fatal flaw in Canada's historic waters argument, for none of the early activity was coupled with an explicit claim to the straits and channels between the islands, while the United States opposed later explicit expressions of the claim.¹²⁵ However, very few people considered the legal status of the waterway prior to the 1960s and, to the degree anyone did, they were working for the Canadian government in conducting sovereignty patrols on water and sea-ice, legislating on whaling, and protecting marine mammals and fish on behalf of an indigenous maritime people.¹²⁶

Indeed, the strongest element in Canada's historic waters claim is the use and occupation of the sea-ice by the Inuit, who have hunted, fished, travelled, and lived on the Northwest Passage for millennia.¹²⁷ In Kugluktuk, we interviewed Alice Ayalik, a 72-year old artisan who spent most of the first thirteen years of her life on the frozen surface of Coronation Gulf, where her family lived in igloos, fished through the ice, and hunted seals. All along the Northwest Passage, there are hundreds of Inuit elders who, in their youth, called the frozen waterway home.

Prior to the negotiations on the 1993 Nunavut Land Claims Agreement, Inuit from across the Arctic were interviewed about traditional hunting and travelling patterns. The resulting map confirmed that the waters south of Ellesmere Island and the Sverdrup Islands—including Lancaster Sound and Barrow Strait—were virtual highways for the Inuit and their dog teams.¹²⁸ More recently, the Inuit Heritage Trust has been interviewing elders about Inuktitut place names along the Northwest Passage.¹²⁹ The literally

surveying and charting the waters of the Archipelago and, in 1977, Canada instituted the NORDREG registration system for ships entering the Arctic. *Id.* at 122.

123. See discussion of the *Manhattan* and *Polar Sea* voyages at *supra* Part III.B and *infra* Part III.E, respectively.

124. *Juridical Regime of Historic Waters, Including Historic Bays—Study Prepared by the Secretariat*, [1962] 2 Y.B. Int'l L. Comm'n 1, 19 U.N. Doc. A/CN.4/143, available at http://untreaty.un.org/ilc/documentation/english/a_cn4_143.pdf.

125. PHARAND, *supra* note 20, at 121–25.

126. *Id.* at 121

127. See David Vanderzwaag & Donat Pharand, *Inuit and the Ice: Implications for Canadian Arctic Waters*, [1983] 21 CAN. Y.B. INT'L L. 53, 79–83 (discussing Inuit dominion over the ice and their ability to cede it to Canada).

128. The map is reproduced in PHARAND, *supra* note 20, at 165.

129. Inuit Heritage Trust: Place Names Program, <http://www.ihti.ca/place-names/pn-index.html?agree=0> (last visited Oct. 9, 2009).

thousands of names confirm the centrality of the frozen waterway to the Inuit's language, culture, history, and identity.

It is possible that the Inuit acquired an historic title over the Arctic waters before the arrival of the Europeans, which they subsequently transferred to Canada.¹³⁰ To succeed with this argument, Canada would have to persuade other countries—or a court or tribunal—that (1) sea ice can be subject to occupancy and appropriation like land¹³¹; (2) under international law, indigenous people can acquire and transfer sovereign rights¹³²; and (3) indigenous rights holders ceded such rights, if they did exist, to Canada. The latter point is the easiest to prove, since the Nunavut Land Claims Agreement affirms the intent of the Inuit to transfer to Canada any rights they might have had over the sea-ice under international law.¹³³ That particular provision was included at the insistence of the Inuit negotiators, and its existence makes Pharand's earlier dismissal of the historic waters argument less convincing than it was before.

Pharand's views did, however, lead the Canadian government to advance a different legal argument after the status of the Northwest Passage was again brought into play in 1985.

E. USCGC *Polar Sea*

In May 1985, the United States informed the Canadian government that the U.S. Coast Guard icebreaker USCGC *Polar Sea* would sail through the Northwest Passage on her way home to Seattle from Thule, Greenland, that August; the U.S. government also invited Canadian Coast Guard personnel to participate in the exercise.¹³⁴ The telegram reiterated the official U.S. position that

130. J. Woehrling, *Les revendications du Canada sur les eaux de l'archipel de l'Arctique et l'utilisation immémoriale des glaces par les Inuit* [*Canadian Claims to the Waters of the Arctic Archipelago and the Historical Use of the Glaciers by the Inuit*], [1987] 30 GERM. Y.B. INT'L L. 120, 139.

131. See S.B. Boyd, *The Legal Status of the Arctic Sea Ice: A Comparative Study and a Proposal*, [1984] 22 CAN. Y.B. INT'L L. 98, 105 (describing how ice has some of the characteristics of land).

132. See *Western Sahara*, Advisory Opinion, 1975 I.C.J. Rep. 12, 79 (Oct. 16) (recognizing that territories inhabited by indigenous peoples having a measure of social and political organization were not *terra nullius* and thus conferred a limited but no less real international legal status on these human "collectivités").

133. Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, Can. Inuit, art 15.1.1(c), May 25, 1993, available at http://www.ainc-inac.gc.ca/pr/agr/pdf/nunav_e.pdf ("Canada's sovereignty over the waters of the arctic archipelago is supported by Inuit use and occupancy.").

134. Rob Huebert, *Steel, Ice and Decision-Making: The Voyage of the Polar Sea and its Aftermath. The Making of Canadian Northern Foreign Policy 211–14*, 230 (1994) (unpublished Ph.D. thesis).

this transit “will be an excuse of navigational rights and freedoms not requiring prior notification. The United States appreciates that Canada may not share this position.”¹³⁵ An American diplomatic note followed on May 21, 1985, stating that “the two countries should agree to disagree on the legal issues and concentrate on practical matters” and that this valuable opportunity for cooperation should “not be lost because of possible disagreements over the relevant juridical regime.”¹³⁶

Canada responded on June 11, 1985, with a diplomatic note reiterating its legal position that the waters of the Northwest Passage were Canadian internal waters but also informing Washington that it was “committed to facilitating navigation” through the Passage and “prepared to work toward this objective.”¹³⁷ It was Canadian policy, as it remains today, to permit transits provided the vessels met rigorous equipment and ship design standards specified in the AWPPA.¹³⁸ Another American note on June 24, 1985, made it clear that, “although the United States is pleased to invite Canadian participation in the transit, it has not sought the permission of the Government of Canada, nor has it given Canada notification of the fact of the transit.”¹³⁹ However, the note also stated, importantly, that the “United States considers that this transit . . . in no way prejudices the juridical position of either side regarding the Northwest Passage, and it understands that the Government of Canada shares that view.”¹⁴⁰

According to Rob Huebert, by the end of June 1985, the two governments felt they had worked out an acceptable arrangement regarding the political and legal implications of the *Polar Sea's* upcoming transit of the Northwest Passage.¹⁴¹ Yet on July 31, 1985, the eve of the voyage, the Canadian government sent a final communication to the United States in which it

noted with deep regret that the United States remains unwilling, as it has been for many years, to accept that the waters of the Arctic archipelago, including the Northwest Passage, are internal waters of Canada and fall within Canadian sovereignty.

135. U.S. Dep't of State, Telegram No. 151842 (May 17, 1985), *reprinted in* OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 73.

136. American Embassy Ottawa, *Démarche* from the United States to Canada (May 21, 1985), *reprinted in* ROACH & SMITH, *supra*, note 87, at 343.

137. Canadian Embassy, Note No. 331 (June 11, 1985), *reprinted in* ROACH & SMITH, *supra*, note 87, at 344.

138. *See* discussion *infra* note 142 and accompanying text.

139. United States, Diplomatic Note No. 222 (June 24, 1985), *reprinted in* OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 73–74.

140. *Id.*

141. Huebert, *supra* note 134, at 239.

. . . In this regard, the Government of Canada indeed shares the view of the United States, communicated in the State Department's Note No. 222 of June 24, 1985 that "the transit, and the preparations for it, in no way prejudice their juridical position of either side regarding the Northwest Passage."

This information and these assurances have satisfied the Government of Canada that appropriate measures have been taken by and under the authority of the Government of the United States to ensure that the Polar Sea substantially complies with the required standards for navigation in the waters of the Arctic archipelago and that in all other respects reasonable precautions have been taken to reduce the danger of pollution arising from this voyage. Accordingly, the Embassy is now in a position to notify the United States that, in the exercise of Canadian sovereignty over the Northwest Passage, the Government of Canada is pleased to consent of the requested transit . . . ¹⁴²

In early August 1985, the *Polar Sea* completed its east-to-west transit of the Northwest Passage through Lancaster Sound, Barrow Strait, Viscount Melville Sound, and Prince of Wales Strait. Two Canadian Coast Guard captains were on board as "invited observers."¹⁴³

Despite the diplomatic understanding between the two countries, the voyage "caused a rush of public anxiety in Canada."¹⁴⁴ Commentators of all stripes denounced the government's response as weak and ineffective and suggested that it had squandered a valuable opportunity to strengthen Canada's legal position.¹⁴⁵ The uproar caught the U.S. government off-guard. An unidentified "senior official" in Washington was reported as describing an attitude of

142. Canada, Note from Canada to the United States (July 31, 1985), *reprinted in* OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 74. An exemption order under the Arctic Waters Pollution Prevention Act was issued for the *Polar Sea*. U.S.C.G.C. Polar Sea Exemption Order, P.C. Order 1985-2409, SOR/85-722 (Aug. 1, 1985). It was reported that "[l]awyers went through appropriate laws with fine-tooth combs and the Canadians took meticulous care over detail, down to the state of every piece of environmental equipment on the vessel." *Northwest Passage Not for the Soviets, U.S. Envoy Feels*, GLOBE & MAIL (Toronto), Aug. 2, 1985, at A1 [hereinafter *Northwest Passage*]. As for Canada's unsolicited grant of consent, Huebert reports that the U.S. was "taken aback"—for it was deemed inconsistent with the agreed upon non-prejudicial legal position. Huebert, *supra* note 134, at 240–42.

143. Jessie C. Carman, *Economic and Strategic Implications of Ice-Free Arctic Seas*, in GLOBALIZATION AND MARITIME POWER n.50 (S.J. Tangredi ed., 2002), available at http://www.ndu.edu/inss/Books/Books_2002/Globalization_and_Maritime_Power_Dec_02/10_ch09.htm.

144. *Chapter 10—A Northern Dimension for Canada's Foreign Policy*, in CANADA, PARLIAMENT, SPECIAL JOINT COMMITTEE ON CANADA'S INTERNATIONAL RELATIONS, INDEPENDENCE AND INTERNATIONALISM: REPORT OF THE SPECIAL COMMITTEE OF THE SENATE AND OF THE HOUSE OF COMMONS ON CANADA'S INTERNATIONAL RELATIONS (1985), available at <http://www.carc.org/pubs/v14no4/6.htm>.

145. See, e.g., Franklyn Griffiths, *Time to Ante Up in the Arctic Game*, GLOBE & MAIL (Toronto), Aug. 22, 1985, at A7 (Canada should "seize opportunity to make good on Arctic waters claim"); Bill Schiller, *Our Borderline Move on Arctic Sovereignty*, TORONTO STAR, Sep. 12, 1985, at A13 (discussing Canada's response).

“surprise and disappointment” at the State Department, for they had “tried to work it out so that nobody’s legal rights were undercut,” and it was “absolutely wrong” to characterize the trip as a confrontational challenge to Canadian sovereignty.¹⁴⁶

F. Arctic Cooperation Agreement

In the wake of the *Polar Sea* controversy, the United States evinced a willingness to engage in bilateral discussions over the status of the Arctic waters. After more than two years of negotiations and thanks in large part to personal interventions by Prime Minister Brian Mulroney and President Ronald Reagan,¹⁴⁷ Canada and the United States signed a four-clause “Arctic Cooperation Agreement” on January 11, 1988.¹⁴⁸ In the Agreement, the United States pledged “that all navigation by U.S. icebreakers within waters claimed by Canada to be internal will be undertaken with the consent of the Government of Canada.”¹⁴⁹

McDorman encourages careful scrutiny of the wording and intent of the 1988 Agreement.¹⁵⁰ Canadian consent is seemingly linked to marine scientific research conducted by American icebreakers,¹⁵¹ and Article 4 spells out that “[n]othing in this Agreement . . . nor any

146. *Northwest Passage*, *supra* note 142, at A1.

147. Christopher Kirkey, *Smoothing Troubled Waters: The 1988 Canada-United States Arctic Cooperation Agreement*, 50 INT’L J. 401, 405–16 (1995); Brian Mulroney, *A Call for a New Northern Vision*, POLICY OPTIONS, June 2006, at 5–9, available at <http://www.irpp.org/po/archive/jun06/mulroney.pdf>.

148. Agreement on Arctic Cooperation, U.S.-Can., Jan. 11, 1988, T.I.A.S. No. 11565, 1852 U.N.T.S. 59.

149. *Id.* at para. 3.

150. T.L. MCDORMAN, SALT WATER NEIGHBORS: INTERNATIONAL OCEAN LAW RELATIONS BETWEEN THE UNITED STATES AND CANADA 249 (2009).

151. Paragraph 3 of the 1988 Agreement states:

In recognition of the close and friendly relations between their two countries, the uniqueness of ice-covered maritime areas, the opportunity to increase their knowledge of the marine environment of the Arctic through research conducted during icebreaker voyages, and their shared interest in safe, effective icebreaker navigation off their Arctic coasts: — The Government of the United States and the Government of Canada undertake to facilitate navigation by their icebreakers in their respective Arctic waters and to develop cooperative procedures for this purpose; — The Government of Canada and the Government of the United States agree to take advantage of their icebreaker navigation to develop and share research information, in accordance with generally accepted principles of international law, in order to advance their understanding of the marine environment of the area; —The Government of the United States pledges that all navigation by U.S. icebreakers within waters claimed by Canada to be internal will be undertaken with the consent of the Government of Canada.

Agreement on Arctic Cooperation, *supra*, note 148, at para. 3.

practice thereunder affects the respective positions of the Government of the United States and of Canada on the Law of the Sea in this or other maritime areas”¹⁵² McDorman’s concerns have proven correct.¹⁵³ On October 27, 2006, U.S. Ambassador David Wilkins wrote a letter to the Canadian Department of Foreign Affairs in which he stated:

For the record, the United States sees no basis in international law to support Canada’s drawing of straight baselines around its Arctic islands and its claim that all the waters among the Canadian Arctic islands, including the Northwest Passage, are internal waters of Canada.

The Northwest Passage is a strait used for international negotiation. Therein, all ships and aircraft enjoy the right of transit passage, in accordance with international law as reflected in the 1982 Law of the Sea Convention. The enjoyment of transit passage is not subject to prior notice to, or permission from, Canada as the State bordering the strait. However, an activity that is not an exercise of the right of transit passage, such as marine scientific research, remains subject to the other applicable provisions of international law.

Canada, consistent with its right as a coastal State under international law, requires that marine scientific research may be conducted in its waters only with its consent. Accordingly, as set out in the Agreement on Arctic Cooperation of January 11, 1988, the United States agrees to seek Canada’s consent when U.S. icebreakers intend to conduct marine scientific research as they transit the Northwest Passage.

. . . .

The Agreement expressly provides that neither it nor any practice thereunder affects the legal views of the two Parties. Thus, the Agreement does not affect the U.S. view that our icebreakers, in the absence of marine scientific research, would not be required to seek Canadian consent before transiting the Northwest Passage.¹⁵⁴

The fact that this interpretation is now an explicit part of the U.S. position does not, however, settle the matter as a question of international law. A different interpretation is just as reasonable, as demonstrated by the fact that Robert Smith and Ashley Roach used the conjunction “and” in their official compilation of U.S. legal positions on maritime claims: “This agreement sets forth the terms for cooperation by the two governments in coordinating research in the Arctic marine environment during icebreaker voyages *and* in facilitating safe, effective icebreaker navigation off their Arctic coasts.”¹⁵⁵

152. *Id.* at para. 4.

153. *See infra* note 156 and accompanying text.

154. Letter from David Wilkins, Ambassador of the U.S., to Peter Boehm, Assistant Deputy Minister, N. Am., Dep’t of Foreign Affairs & Int’l Trade (Can.) (Oct. 27, 2006), *available at* www.state.gov/documents/organization/98836.pdf.

155. OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 74 (emphasis added).

McDorman's point concerning the non-prejudicial character of the Arctic Cooperation Agreement and any subsequent U.S. Coastguard icebreaker transits is more important and unquestionably correct. The agreement successfully addressed the principal irritant to Canada–United States relations in the Northwest Passage by taking the issue of U.S. Coastguard icebreakers out of the legal dispute. With the multi-year ice precluding voyages by other foreign vessels, the deal regarding icebreakers was essentially an “agreement to disagree” with respect to the Northwest Passage dispute as a whole.¹⁵⁶ It created a new status quo that might have solved the entire problem indefinitely if not for the sudden, unanticipated effects of climate change two decades later.

IV. THE LEGAL DISPUTE: 1986 TO THE PRESENT

Following the voyage of the *Polar Sea* in 1985, Canada acted to consolidate its legal position by drawing “straight baselines” connecting the outer headlands of its Arctic archipelago.¹⁵⁷ Straight baselines became a legally accepted means for determining the extent of coastal state control along fragmented coastlines as the result of a 1951 decision by the International Court of Justice in a dispute between Britain and Norway over fishing rights.¹⁵⁸ In making the announcement, Joe Clark, then-Minister for External Affairs, stated that “[t]hese baselines define the outer limit of Canada's *historic internal waters*.”¹⁵⁹

The Canadian Government received letters of protest from two countries in response to the proclamation of its Arctic baselines. A February 26, 1986 letter from James W. Dyer, Acting Assistant

156. *Id.*

157. Territorial Sea and Fishing Zones Act, R.S.C., c.T 7 (1970) (Can.).

158. Fisheries Case (U.K. v. Nor.), 1951 I.C.J. 116, 128 (Dec. 18). The ICJ held that the use of straight baselines was permitted in only two geographically defined circumstances: “Where a coast is deeply indented and cut into, as is that of Eastern Finmark, or where it is bordered by an Archipelago, such as the skjaergaard.” *Id.* The second geographical criterion was modified slightly in Article 7(1) of UNCLOS:

In localities where the coastline is deeply indented and cut into, or if there is a *fringe of islands* along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

UNCLOS, *supra* note 59, art. 7 (emphasis added). As Canada was not a party to UNCLOS in 1986, its baselines were drawn pursuant to the ICJ's ruling in the *Fisheries Case*. See discussion, *infra* text accompanying notes 178–79.

159. Joe Clark, Sec'y of State for External Affairs, *Statement on Sovereignty*, Sep. 10, 1985, reprinted in POLITICS OF THE NORTHWEST PASSAGE 271 (Franklyn Griffiths ed., 1987) (emphasis added).

Secretary of State for Legislative and Intergovernmental Affairs, to Senator Charles Mathias Jr., a Maryland Republican, summarized the U.S. position:

On September 10, 1985, the Government of Canada claimed all the waters among its Arctic islands as internal waters, and drew straight baselines around its Arctic islands to establish its claim. The United States position is that there is no basis in international law to support the Canadian claim. The United States cannot accept the Canadian claim because to do so would constitute acceptance of full Canadian control of the Northwest Passage and would terminate U.S. navigation rights through the Passage under international law.¹⁶⁰

As Pharand observes, the letter does not specify whether the U.S. objection was to the historic basis for the claim to internal waters, straight baselines themselves, or both.¹⁶¹ Since the letter clearly asserts that there is no basis to support the Canadian claim, however, Pharand believes that the U.S. objection refers to the claim itself, “regardless of its precise legal basis.”¹⁶²

The second protest came from the Member States of the European Community through the British High Commission in Ottawa. The diplomatic note stated:

The validity of the baselines with regard to other states depends upon the relevant principles of international law applicable in this case, including the principle that the drawing of baselines must not depart to any appreciable extent from the general direction of the coast. The Member States acknowledge that elements other than purely geographical ones may be relevant for purposes of drawing baselines in particular circumstances but are not satisfied that the present baselines are justified in general. Moreover, the Member States cannot recognize the validity of a historic title as justification for the baselines drawn in accordance with the order.¹⁶³

The European objection is clearly directed at both the Arctic baseline system in general and the historic title in particular. However, if the Canadian straight baselines were drawn simply to identify the precise extent of Canada’s historic internal waters in the Arctic, McDorman believes an argument could be made that such baselines are not captured by the normal rules concerning their length and proximity to the coast.¹⁶⁴ Alternatively, Canada could argue that the waters enclosed by the baselines are “non-historic internal waters,” to

160. U.S. Dep’t of State, File No. P86 0019-8641, *reprinted in* OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 29.

161. Pharand, *supra* note 97, at 12.

162. *Id.*

163. British High Commission Note No. 90/86 of July, 1986, *reprinted in* OFFICE OF OCEAN AFFAIRS, *supra* note 118, at 29–30.

164. MCDORMAN, *supra* note 150, at 238.

borrow McDorman's description.¹⁶⁵ In this case, Canada's baselines will have to satisfy the relevant international legal criteria governing the construction of such lines.

In 1986, when Canada drew its baselines, it was not a party to either the 1958 Convention on the Territorial Sea and Contiguous Zone or the 1982 United Nations Law of the Sea Convention. Consequently, the validity of Canada's baselines must be judged according to the customary rules applied by the International Court of Justice in the 1951 *Norwegian Fisheries Case*.¹⁶⁶ In that judgment, the Court, when determining the validity of Norway's baseline system, defined a threshold requirement by limiting the use of baselines to two particular geographic situations:

Where a coast is deeply indented and cut into, as is that of Eastern Finnmark, or where it is bordered by an archipelago such as the "skjaergaard" along the western sector of the coast here in question, the base-line becomes independent of the low-water mark and can only be determined by means of a geometrical construction.¹⁶⁷

The Court's threshold geographic criteria were subsequently codified in Article 4 of the 1958 Convention and Article 7(1) of UNCLOS, with the later provision explaining that

[i]n localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.¹⁶⁸

The key phrase with respect to Canada's Arctic baseline system is "a fringe of islands along the coast in its immediate vicinity." The Convention does not define these terms. How then is a "fringe of islands" to be defined, and at what distance offshore must such a fringe of islands be in order to be within the "immediate vicinity" of a coastline?

Roach and Smith tackled this two-part question in their 1996 study "United States Responses to Excessive Maritime Claims." According to the authors, both employees of the U.S. State Department at the time,

[t]he United States has taken the position that such a fringe of islands must meet all of the following requirements:

- the most landward point of each island lies no more than 24 miles from the mainland coastline;

165. *Id.*

166. Fisheries Case (U.K. v. Nor.), 1951 I.C.J. 116 (Dec. 18).

167. *Id.* at 128–29.

168. UNCLOS, *supra* note 59, art. 7, para. 1.

- each island to which a straight baseline is to be drawn is not more than 24 miles apart from the island from which the straight baseline is drawn; and
- the islands, as a whole, mask at least 50% of the mainland coastline in any given locality.¹⁶⁹

However, state practice does not reveal a general endorsement of the American three-part test. As Johnston rightly points out, “the Convention does not provide precise guidelines as to when straight baseline may or may not be used, and to that extent concedes much to the discretion of the coastal State.”¹⁷⁰ Indeed, the lack of a mathematical measure to limit the length of straight baselines under article 7(1) contrasts sharply with the precise limit of twenty-four nautical miles imposed as a closing line for bays under article 10(5) of UNCLOS.¹⁷¹

Johnston alludes to the fact that the treaty version of the geographic criteria defined by the ICJ extended the threshold requirements:

[T]he ILC [International Law Commission] decided, after much controversy, that the straight baseline of delineation should be available generally to any state whose coastline was “deeply indented and cut into” or to any state with “a fringe of islands along the coast in its immediate vicinity”: that is, to many coastal states whose coastline was not nearly so complex as Norway’s.¹⁷²

He concludes, however, that “state practice since the 1950s has, as widely predicted, ‘altogether failed to reflect either [the ILC’s] limited view of the occasions when the method is available, or the notion that the length of straight baselines is inherently restricted by the concept of the ‘general direction of the coast.’”¹⁷³

Johnston’s conclusions accord with a detailed study that the UN Office for Ocean Affairs and the Law of the Sea completed the following year.¹⁷⁴ Given the importance and value of this source, we reproduce a significant portion of the analysis relevant to article 7(1) here:

169. ROACH & SMITH, *supra* note 87, at 63–64.

170. DOUGLAS M. JOHNSTON, *THE THEORY AND HISTORY OF OCEAN BOUNDARY-MAKING* 113 (1988).

171. UNCLOS, *supra* note 59, arts. 7(1), 10(5).

172. JOHNSTON, *supra* note 170 (citing Convention on the Territorial Sea and the Contiguous Zone, art. 4, para. 1, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205).

173. JOHNSTON, *supra* note 170, 114 (citing 1 D.P. O’CONNELL, *INTERNATIONAL LAW* 211 (2d ed. 1970)).

174. OFFICE FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, *THE LAW OF THE SEA—BASELINES: AN EXAMINATION OF THE RELEVANT PROVISIONS OF THE UN CONVENTION ON THE LAW OF THE SEA* (1989).

35. In determining whether the conditions apply which would permit the use of straight baselines it is necessary to focus on the spirit as well as the letter of the first paragraph of article 7 . . .

39. The spirit of article 7, in respect of indented coasts and fringing islands, will be preserved if straight baselines are drawn when the normal baseline and closing lines of bays and rivers would produce a complex pattern of territorial seas and when those complexities can be eliminated by the use of a system of straight baselines . . .

41. While the phrase 'deeply indented and cut into' travelled intact from the 1951 Anglo-Norwegian Fisheries case Judgment to the 1982 United Nations Convention via the 1958 Convention, the phrase 'a fringe of islands along the coast in its immediate vicinity' appears to be a *widening of the phrase used in the Judgment*: 'or where it (a coast) is bordered by an archipelago such as the 'skjaergaard.'

42. *There is no uniformly identifiable objective test* which will identify for everyone islands which constitute a fringe in the immediate vicinity of the coast . . .

44. There are generally two situations where a fringe of islands is likely to exist. The first, which is related closely to the 1951 Anglo-Norwegian Fisheries case Judgment, deals with islands which appear to form a unity with the mainland. Such islands appear to be dovetailed into the coast and on small-scale maps appear to be a continuation of the mainland . . .

45. The second situation occurs when islands which are some distance from the coast form a screen which masks a large proportion of the coast from the sea . . . However the coast may be screened by a swarm of small islands which by their number justify consideration as a fringe . . .

46. The descriptive phrase 'in its (the coast's) immediate vicinity' is a concept which has a clear meaning *but for which there is no absolute test*. While a fringe of islands three nautical miles from the coast may be considered as being in its immediate vicinity, a fringe 100 nautical miles distant would not. It is generally agreed that with a 12-mile territorial sea, a distance of 24 miles would satisfy the conditions. The distance that has been proposed in the literature as a general rule is 48 miles, which *could be exceeded in certain circumstances, but this figure is not necessarily widely agreed upon*.¹⁷⁵

Pharand has argued that the Arctic Archipelago "presents two characteristics of fundamental importance" in regards to the geographic threshold: "the proximity of the Archipelago to the [Canadian] coast and the unity of the Archipelago itself."¹⁷⁶

As for the proximity to the coast, there can be no question that this element is present, since not only are most of the islands, which form the base of the Archipelago located very close to the coast, but the coast itself, through its central peninsula, advances into the very core of the Archipelago. . . . The unity of the Archipelago itself is derived from the interpenetration of land formation and sea areas, and this close relationship is reinforced by the presence of ice most of the year. The

175. *Id.*

176. Pharand, *supra* note 97, at 16.

geographic unity is further assured by the string of closely spaced islands across Parry Channel, linking the northern with the southern section and forming a single unit.¹⁷⁷

Having satisfied the threshold geographic requirement, the actual construction of the baselines is subjected to further rules. In the *Norwegian Fisheries Case*, the ICJ formulated three criteria to help guide its decision: (1) “[W]hile . . . a State must be allowed the latitude necessary in order to be able to adapt its delimitation to practical needs and local requirements, the drawing of base-lines must not depart to any appreciable extent from the general direction of the coast”¹⁷⁸ (the general direction of the coast criterion); (2) “[t]he real question raised in the choice of base-lines is in effect whether certain sea areas lying within these lines are sufficiently closely linked to the land domain to be subject to the regime of internal waters”¹⁷⁹ (the close link between land and sea criterion); (3) “[f]inally, there is one consideration not to be overlooked, the scope of which extends beyond purely geographical factors: that of certain economic interests peculiar to a region, the reality and importance of which are clearly evidenced by a long usage”¹⁸⁰ (the economic interests criterion).

As evidenced by the European Community’s note of protest, Canada’s Arctic baseline system sometimes faces criticism for failing to satisfy the first criterion (general direction).¹⁸¹ However, the court cautioned in its judgment that this first criterion was “devoid of any mathematical precision,”¹⁸² and it even specified that “the method of base-lines . . . within reasonable limits, may depart from the physical line of the coast.”¹⁸³ Still, as Pharand writes:

[J]udging from the commonly used Lambert conic projection, it would be difficult to maintain that the first criterion of the general direction of the coast is complied with. Indeed, the northern coast of Canada runs in a general east-west direction, whereas the Archipelago appears to project itself in a general northerly direction.¹⁸⁴

Victor Prescott contends that the general direction criterion is not only concerned with the direction of the coast of the mainland and islands that dovetail into it.¹⁸⁵ He insists that large islands can be

177. *Id.*

178. *Fisheries Case (U.K. v. Nor.)*, 1951 I.C.J. 116, 133 (Dec. 18).

179. *Id.*

180. *Id.*

181. Pharand, *supra* note 97, at 12.

182. *Fisheries Case*, 1951 I.C.J. at 142.

183. *Id.* at 129.

184. Pharand, *supra* note 97, at 18 (citation to figure omitted).

185. Victor Prescott, *Donat Pharand's Canada's Arctic Waters in International Law*, 5 NAT'L GEO. RES. 271, 272 (1989) (book review).

fringed by smaller islands and points out that Article 121 of the 1982 Law of the Sea Convention provides “that baselines for islands are determined in exactly the same way as for other land territory.”¹⁸⁶ On this basis, Prescott concludes, “a case could be made that the small islands totalling more than 18 000 provide a series of fringes to the large islands that interlock. This would lead irresistibly to the conclusion that to draw straight baselines *within* the archipelago rather than around its perimeter would violate the concept of fringing islands.”¹⁸⁷

The second and perhaps better way of evaluating the general direction of the baselines in relation to Canada’s northern coast is to use a map with fewer distortions than a conic projection. Pharand explains that:

Although this projection [conic projection] is a considerable improvement over the old Mercator, areas in high latitudes still present considerable distortions. Those areas appear larger as one approaches the North Pole and seem to point northward in a shape resembling a triangle. Fortunately, the distortion problem was solved in large measure on a world map published by the National Geographic Society in 1988, projecting the polar regions in a far more realistic manner. The map displays the Robinson projection Of course, it does not pretend to completely solve the problem of representing the globe on a flat surface In spite of the remaining distortion at high altitude [sic], the Archipelago is better represented. It is fully integrated in the mainland, and it is oriented east and west in the same general direction.¹⁸⁸

The fulfillment of the general direction criterion is even more obvious on maps which are centered on the North Pole, with Canada, Alaska, Russia, Norway, and Greenland all fringing a suddenly very large Arctic Ocean.¹⁸⁹ Indeed, Pharand insists that Canada’s baseline system meets the stricter test formulated by the United States “that the general trend of the most distant islands not deviate more than 20° from coastline or its general direction.”¹⁹⁰

As for the second criterion (the close link), “the sea to land ratio [in the Canadian Arctic Archipelago] is 0.822 to 1, considerably better

186. *Id.*; UNCLOS, *supra* note 59, art. 121, para. 2.

187. Prescott, *supra* note 185, at 272.

188. Pharand, *supra* note 97, at 18–19 (reference to figure omitted). The Robinson projection can be found under the “pseudocylindrical projections” section of the “Map projection overview” website developed by Peter H. Dana of the Department of Geography, University of Texas at Austin, <http://www.colorado.edu/geography/gcraft/notes/mapproj/gif/robinson.gif> (last visited Oct. 9, 2009).

189. *See, e.g.*, The International Bathymetric Chart of the Arctic Ocean, <http://www.ngdc.noaa.gov/mgg/bathymetry/arctic/arctic.html> (last visited Oct 9, 2009) (an example of the type of map being described).

190. Pharand, *supra* note 97, at 19 (quoting 106 U.S. Dep’t of State, *Developing Standard Guidelines for Evaluating Straight Baselines*, LIMITS IN THE SEAS, Aug. 31, 1987, at 16).

than the 3.5 to 1 ratio” in the case of the Norwegian skargaard.¹⁹¹ In the same context, Pharand identifies a second positive factor that (at least historically) strengthened Canada’s position: “the quasi-permanency of the ice over the enclosed water,” which “bolsters the physical unity between land and sea.”¹⁹² In a speech before the Canadian House of Commons in September 1985, Joe Clark, then-Secretary of State for External Affairs, stressed this second factor:

Canada’s sovereignty in the Arctic is indivisible. It embraces land, sea and ice. It extends without interruption to the sea-ward facing coasts of the Arctic islands. These islands are joined, and not divided, by the waters between them. They are bridged for most of the year by ice. From time immemorial Canada’s Inuit people have used and occupied the ice as they have used and occupied the land.¹⁹³

The last line of this passage also speaks to the economics interests criterion. The economic interests of the Inuit reinforce Canada’s baselines, which are valid under the two compulsory geographic criteria. Indeed, the historic use and occupancy of the sea [and] ice by the Inuit help to justify Canada’s baseline system as a whole as well as individual baselines.¹⁹⁴ Article 7(5) of 1982 Law of the Sea Convention codifies this third criterion: “Where the method of straight baselines is applicable under paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage.”¹⁹⁵ In the 1951 *Norwegian Fisheries Case*, the ICJ held that this economic criterion included “nutritional and cultural dependence.”¹⁹⁶ In particular, the Court found that “the survival of traditional rights reserved to the inhabitants of the Kingdom over fishing grounds . . . [F]ounded on the vital needs of the population and attested by very ancient and peaceful usage, may legitimately be taken into account in drawing a line.”¹⁹⁷

191. Pharand, *supra* note 97, at 19.

192. *Id.*

193. Clark, *supra* note 159, at 270.

194. A few of Canada’s baselines have been subjected to particular criticism: the Lancaster Sound line (51 miles); the Amundsen Gulf line (92 miles); the McClure Strait line (99 miles); and the Borden Island-Ellef Ringnes Island line (62miles).” It must be noted that neither the *Norwegian Fisheries case*, nor the 1958 and 1982 Law of the Sea conventions, fix any maximum length for straight baselines enclosing coastal archipelagos. See *Fisheries Case (U.K. v. Nor.)*, 1951 I.C.J. 116 (Dec. 18); UNCLOS, *supra* note 59.

195. UNCLOS, *supra* note 59, art. 7, para. 5.

196. David VanderZwaag & Donat Pharand, *Inuit and the Ice: Implications for Canadian Arctic Waters*, [1983] 21 CAN. Y.B. INT’L L. 53, 64; see *Fisheries Case*, 1951 I.C.J. at 133 (discussing economic interests that should be considered).

197. *Fisheries Case*, 1951 I.C.J. at 142. According to Pharand,

Sea-ice is vital to Inuit culture and way of life. As detailed in a petition concerning climate change filed by Inuit from Canada and Alaska with the Inter-American Commission on Human Rights:

Although many Inuit are [now] engaged in wage employment, the Inuit continue to depend heavily on the subsistence harvest for food. Traditional “country food” is far more nutritious than imported “store-bought” food. Subsistence harvesting also provides spiritual and cultural affirmation, and is crucial for passing skills, knowledge and values from one generation to the next, thus ensuring cultural continuity and vibrancy.

....

[The Inuit] have developed an intimate relationship with their surroundings, using their understanding of the arctic environment to develop a complex culture that has enabled them to thrive on scarce resources. The culture, economy and identity of the Inuit as an indigenous people depend upon the ice and snow.¹⁹⁸

The economic and cultural dependence of the Inuit on the sea-ice from time immemorial is a critical aspect of Canada’s claim over the waters of its Arctic Archipelago. Again, this fact was emphasized in the Nunavut Land Claims Agreement concluded in 1993 between the Canadian government and the Inuit, which affirms that “Canada’s sovereignty over the waters of the Arctic archipelago is supported by Inuit use and occupancy.”¹⁹⁹

By its very flexible nature, the doctrine of consolidation of title easily encompasses the vital interests of the coastal State and its inhabitants In the establishment of its straight baseline system by its 1935 decree, Norway invoked in the preamble the following vital and related interests: . . . ‘the safeguard of the *vital interests* of the inhabitants of the northernmost parts of the country.’ . . . The Court accepted Norway’s arguments, by giving considerable weight to the ‘vital needs of the population of the Lophavet region’

PHARAND, *supra* note 20, at 143–44.

198. SHEILA WATT-CLOUTIER, PETITION TO THE INTER AMERICAN COMMISSION ON HUMAN RIGHTS SEEKING RELIEF FROM VIOLATIONS RESULTING FROM GLOBAL WARMING CAUSED BY ACTS AND OMISSIONS OF THE UNITED STATES 1 (2005), *available at* http://www.earthjustice.org/library/legal_docs/petition-to-the-inter-american-commission-on-human-rights-on-behalf-of-the-inuit-circumpolar-conference.pdf.

199. Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, *supra* note 133, art. 15.1.1(c).

V. WAS THE NORTHWEST PASSAGE AN INTERNATIONAL STRAIT BEFORE 1986?

Although a strong case can be made for the legal validity of Canada's straight baselines and thus for the claim that the waters they enclose are Canadian internal waters, the Northwest Passage itself may not have the same status. This is because an existing international strait *cannot* be closed off by new baselines.²⁰⁰ As a result, the crux of the dispute between Canada and the United States regarding the status of the Northwest Passage concerns the so-called "functional criterion" and, specifically, whether the Northwest Passage was "used for international navigation" prior to 1986 when Canada drew its baselines.²⁰¹

During the negotiations leading to the 1958 Law of the Sea Convention, states were unable to agree on a generally acceptable legal regime for international straits.²⁰² The issue of straits was also quite divisive during the lead-up to the 1982 Law of the Sea Convention, pitting coastal States, particularly in the developing world, against the maritime powers.²⁰³ Although a compromise was eventually reached as to the nature and scope of the right of passage that would apply to "straits used for international navigation," the negotiators were unable to agree on a precise definition for such straits.²⁰⁴ Consequently, it is necessary to rely on existing customary international law, particularly as interpreted and applied by the International Court of Justice in the *Corfu Channel Case*.²⁰⁵

In its 1949 judgment, the only international ruling on the issue, the court had to decide whether the North Corfu Channel was an international strait.²⁰⁶ The court arrived at the conclusion that it "should be considered as belonging to the class of international highways through which passage cannot be prohibited by a coastal

200. See UNCLOS, *supra* note 59, art. 35 (provides that nothing in the part affects areas of internal waters within a strait).

201. See Pharand, *supra* note 97, at 34-35 (citing *Corfu Channel (U.K. v. Alb.)*, 1949 I.C.J. 4, 28 (Apr. 9)).

202. See PHARAND, *supra* note 63, at 89 (describing how a comprehensive set of provisions on international straits was not adopted until UNCLOS in 1982).

203. *Id.*

204. Part III of UNCLOS essentially incorporated the draft prepared by the Private Group on Straits (chaired by the United Kingdom and Fiji) and retained the two criteria identified in article 1 of the draft: "This article applies to any strait (which term includes any naturally formed stretch of water whatever its geographical name) which: (a) is used for international navigation; and (b) connects two parts of the high seas." 4 THIRD UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA: DOCUMENTS 194 (Platzöder ed., 1982).

205. *Corfu Channel Case (U.K. v. Alb.)*, 1949 I.C.J. 4 (Apr. 9).

206. *Id.*

State in time of peace.”²⁰⁷ In deciding “whether the test is to be found in the volume of traffic passing through the Strait or in its greater or lesser importance for the international navigation,” the court stated that “the decisive criterion is rather its geographical situation as connecting two parts of the high seas and the fact of its being used for international navigation.”²⁰⁸

It is in this key passage that the court sets out the twin criteria that define an international strait: “one pertaining to geography and the other to the function or use of the strait,” to borrow Pharand’s words.²⁰⁹ The court’s deliberate use of the coordinative conjunction “and” seems to give equal weight to both criteria.

While no one disputes that the Northwest Passage fulfills the geographic criterion by connecting the Atlantic and Arctic oceans, there has been considerable debate over the precise meaning ascribed to the functional criterion, namely the words “used for international navigation.” Pharand has argued that the expression means that “before a strait may be considered international, proof must be adduced that it has a *history as a useful route for international maritime traffic*.”²¹⁰

Confirmation for this assessment can be found in the view expressed by the United Kingdom in its pleadings in the 1951 *Norwegian Fisheries Case* wherein it defined an international strait as “any legal strait to which a special régime as regards navigation applies under international law *because the strait is substantially used by shipping* proceeding from one part of the high seas to another.”²¹¹ The International Law Commission’s draft convention for the 1958 Law of the Sea Conference similarly confined the right of non-suspendable innocent passage to straits “*normally* used for international navigation between two parts of the high seas.”²¹² However, the drafters eventually dropped the qualifying adverb “normally,” and it does not appear in either the 1958 Territorial Sea Convention or the 1982 United Nations Convention on the Law of the Sea.²¹³

207. *Id.* at 29.

208. *Id.* at 28.

209. Pharand, *supra* note 97, at 30.

210. *Id.* at 35.

211. *Id.* at 35 (quoting Reply of the United Kingdom, Fisheries Case (U.K. v. Nor.), 1951 I.C.J. Pleadings, vol. II., at 555 (emphasis added)).

212. Int’l Law Comm’n, *Report of the International Law Commission to the General Assembly*, art. 17, para. 4, U.N. Doc. A/3159 (July 4, 1956), reprinted in [1956] 2 Y.B. Int’l L. Comm’n 253, 273, U.N. Doc. A/CN.4/SER.A/1956/Add.1, available at [http://untreaty.un.org/ilc/publications/yearbooks/Ybkvolumes\(e\)/ILC_1956_v2_e.pdf](http://untreaty.un.org/ilc/publications/yearbooks/Ybkvolumes(e)/ILC_1956_v2_e.pdf) (emphasis added).

213. See Convention on the Territorial Sea and the Contiguous Zone, *supra* note 172, art. 16, para. 4 (referring to straits used for international navigation without the

Pharand speculates that the intent behind the deletion of the word “normally” may simply have been to remove the necessity of regular use over a very long period.²¹⁴ In the *Corfu Channel Case*, evidence showed that the British navy had made regular use of the waterway for some eighty years.²¹⁵ Regardless of the precise reasons for the removal of the word “normally,” Pharand insists that before a strait may be considered international, proof must be presented that it is an international maritime highway.²¹⁶ This conclusion appears to accord with the interpretation of the Corfu criteria generally given by experts.

In 1964, Richard Baxter wrote, “[I]nternational waterways must be considered to be those rivers, canals, and straits which are *used to a substantial extent* by the commercial shipping or warships belonging to states other than the riparian nation or nations.”²¹⁷ As for the criteria applied by the ICJ in the *Corfu Channel Case*, Baxter concluded that “the test applied by the court lays more emphasis on the practices of shipping than on geographic necessities.”²¹⁸

Daniel O’Connell also emphasized the importance of the “actual use” criterion:

When it is said, then, that a strait in law is a passage of territorial sea linking two areas of high sea this is not to be taken literally, but rather construed as meaning a passage which *ordinarily carries the bulk of international traffic* not destined for ports on the relevant coastlines. The test of what is a strait, unlike the test of what is a bay, is not so much geographical, therefore, as functional.²¹⁹

O’Connell later reaffirmed the importance of the functional element in what is arguably his most authoritative study, *The International Law of the Sea*.²²⁰ In his opinion, the *Corfu Channel Case* established “that not all straits linking two parts of the high seas are international straits, but *only those which are important as communication links*.”²²¹

qualifying adverb “normally”); UNCLOS, *supra* note 59 (referring to straits used for international navigation without the qualifying adverb “normally”).

214. PHARAND, *supra* note 63, at 94.

215. *Corfu Channel (U.K. v. Alb.)*, 1949 I.C.J. 29 (Apr. 9).

216. See Pharand, *supra* note 97, at 35 (discussing that what was important about the North Corfu Channel was that it had been a “useful route for international maritime traffic”).

217. R.R. BAXTER, *THE LAW OF INTERNATIONAL WATERWAYS* 3 (1964) (emphasis added).

218. *Id.* at 9.

219. 1 D.P. O’CONNELL, *THE INTERNATIONAL LAW OF THE SEA* 497 (I. A. Shearer ed., 1982) (emphasis added).

220. *Id.*

221. *Id.* at 314 (emphasis added).

In what is arguably the most complete modern study of straits in international law, Hugo Caminos concludes:

The amount of use required of a strait before it can be categorized as “belonging to a class of international highways through which passage cannot be prohibited” has never been adequately quantified by scholarly debate. One could conclude, however, that this amount lies somewhere between strict utility and potential utility.²²²

More recently, Robin Churchill and Vaughan Lowe have considered the Northwest Passage, along with the Northern Sea Route, to be situations where there is “real doubt” as to whether an international strait exists.²²³ They chose not to analyze the Northwest Passage because the dispute between Canada and the United States “was circumvented” by the 1988 Arctic Cooperation Agreement, but their views on the Northern Sea Route would still seem to be of some relevance: “[T]here are doubts as to whether the straits can be said to be ‘used for international navigation,’ and thus attract a right of transit passage, in the light of the handful of sailings through the (often ice-bound) straits that have actually taken place.”²²⁴

Despite the general view that a certain level of actual use is required, voices from within the U.S. military assert that potential use is sufficient. In 1987, Richard Grunawalt of the U.S. Naval War College wrote:

Some nations take the view that an actual and substantial use over an appreciable period of time is the test. Others, including the United States, place less emphasis on historical use and look instead to the susceptibility of the strait to international navigation. The latter view has the greater merit.²²⁵

The last sentence is, of course, an opinion rather than an argument. Twenty years later, J.C. Kraska of the U.S. Navy asserted that

[t]he test is geographic, not functional—if the water connects one part of the high seas or EEZ to another part of the high seas or EEZ, it is a strait. . . . [T]here is no authority for the idea that a strait is only a strait if it meets a certain minimum threshold of shipping traffic.”²²⁶

222. Hugo Caminos, *The Legal Régime of Straits in the 1982 United Nations Convention on the Law of the Sea*, in [1987] 205 RECUEIL DES COURS: COLLECTED COURSES OF THE HAGUE ACADEMY OF INTERNATIONAL LAW 128 (Académie de Droit International ed., 1989).

223. R.R. CHURCHILL & A.V. LOWE, *THE LAW OF THE SEA* 106 (3d ed. 1999).

224. *Id.*

225. R.J. Grunawalt, *United States Policy on International Straits*, 18 OCEAN DEV. & INT'L L. 445, 456 (1987).

226. J.C. Kraska, *The Law of the Sea Convention and the Northwest Passage*, 22 INT'L J. MARINE & COASTAL L. 257, 274 (2007), available at http://www.cdai-cai.ca/cdai/uploads/cdai/2008/12/vimy_paper2.pdf.

The Canadian media described Kraska's article as having "the full backing of the Bush administration in Washington."²²⁷ However, we have not been able to find any other country that publicly supports the U.S. view. Yet again, neither customary international law nor the only ICJ decision on international straits—the only points of reference given that the treaties (1958 and 1982 Conventions) do not give a precise definition of an international strait—support the "potential use" interpretation.

That said, there is still some debate as to the necessary *volume* of traffic. As Pharand reported, the evidence in the *Corfu Channel Case* showed that it had been a very useful route for ships flagged by seven states: Greece, Italy, Romania, Yugoslavia, France, Albania, and the United Kingdom.²²⁸ Over a 21-month period, there were some 2,884 crossings, and this figure covered only those ships which had put into port and been visited by customs.²²⁹ It did not include the large number of vessels that had gone through the strait without calling at the Port of Corfu.²³⁰ "In other words," concluded Pharand, "the actual use of the North Corfu Channel had been quite considerable."²³¹

In contrast, Pharand was able to document only sixty-nine transits of the Northwest Passage in the century prior to and including 2005: twenty small yachts, two tankers, eighteen icebreakers, and twenty-nine passenger ships.²³² All of the foreign vessels, including the two tankers and twenty-nine passenger ships that could be classified as international commercial navigation, obtained Canada's prior authorization.²³³ The only exception was the *Polar Sea* in 1985, which, as we have seen, sailed through the Passage under an informal agreement to disagree.²³⁴

It is thus Canada's position that the Northwest Passage does not fulfill the functional criterion that, together with the geographic criterion, defines an international strait.²³⁵ By drawing straight baselines in 1986, Canada attempted to preclude the possibility that

227. Mike Blanchfield, *Pentagon Adviser Belittles Canadian Claim to Northwest Passage*, CANWEST NEWS SERVICE (Ottawa), Feb. 15, 2007, available at http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=389x232736.

228. *Corfu Channel (U.K. v. Alb.)*, 1949 I.C.J. 29 (Apr. 9).

229. *Id.*

230. *Id.*

231. PHARAND, *supra* note 63, at 93.

232. Pharand, *supra* note 97, at 38.

233. *See id.* at 38–40 (discussing the documented transits of the Northwest passage).

234. *See* discussion *supra* text accompanying note 157.

235. *See* PHARAND, *supra* note 20, at 224 (1988) (applying the functional criterion to the Northwest Passage).

the Northwest Passage could eventually become an international strait.²³⁶ And it would have succeeded if the baselines had been widely recognized. However, as noted, Canada's Arctic baselines have not received widespread support from other countries; instead, they immediately attracted diplomatic protests from the United States and European Community.²³⁷ With the legality of the straight baselines unresolved, the status of the Northwest Passage remains uncertain. Consequently, even if the Northwest Passage was not an international strait before 1986, the position asserted by Canada when it drew the baselines could, arguably, still be undermined by non-consensual voyages that, over time, could turn the Northwest Passage into an international strait.²³⁸

One year before Canada drew its baselines, Pharand warned that increased international shipping would probably result in the internationalization of the Passage.²³⁹ Three years after the baselines were drawn, Howson wrote:

[T]hough at present both the rarity of surface voyages and the difficulty of navigation through the ice-bound waters keep international maritime navigation away from the Northwest Passage, technological advancement will soon complement geographic potential. Indeed, to a certain extent, this has already occurred with rapid advances in submarine technology. Under either "actual" or "potential" use standards, the Passage is likely to become a far more compelling case for the status of an "international strait."²⁴⁰

These forecasts did not even take into account the subsequent sudden, and dramatic loss of sea-ice caused by climate change. However, Howson's comments do touch on an additional, key component of the legal puzzle: submarine transits through the Northwest Passage.

236. BING BING JIA, *THE REGIME OF STRAITS IN INTERNATIONAL LAW* 7 (1998).

237. Lieutenant-Commander Guy Killaby, "Great Game In A Cold Climate": *Canada's Arctic Sovereignty in Question*, CANADIAN MIL. J., available at <http://www.journal.dnd.ca/vo6/no4/north-nord-01-eng.asp> (last visited Oct. 9, 2009).

238. See PHARAND, *supra* note 63, at 110 (arguing that international shipping may result in the internationalization of the passage). By "non-consensual voyages" we mean transits through the Northwest Passage by foreign vessels that have not received prior authorization from the competent Canadian authorities.

239. PHARAND, *supra* note 63, at 110.

240. Howson, *supra* note 71, at 370-71.

A. *Submarines in the Northwest Passage*

Submarine transits are of central importance to understanding the traditional U.S. position on the Northwest Passage. This is due to the Arctic Ocean's strategic location between the United States and Russia and the legal consequences for submarine traffic of regarding the Passage as anything other than an international strait. For under the law of the sea, submarines may pass through an international strait without surfacing or otherwise alerting the adjacent coastal state or states, something not permitted in internal or (regular) territorial waters.²⁴¹

Nuclear-powered submarines do not require oxygen for propulsion and are therefore not dependent on the straits and channels being free of ice. It is widely known, though infrequently officially acknowledged, that submarines from several countries regularly traverse the Northwest Passage.²⁴² Publicly, Canada has chosen to ignore the issue; it has never possessed a submarine that could travel under the ice. In 1987, two years after the *Polar Sea* incident, the Canadian government decided to acquire ten to twelve nuclear-powered submarines that could have done so, but pressure from Washington soon led to the abandonment of that plan.²⁴³ Nor has Canada made any effort to deploy a surface-based anti-submarine operation in the area.

Arguably, it works in Canada's favor that the submarines do not announce their presence. In international law, a country is generally required to manifest some sense of legal obligation or entitlement before its actions can contribute to the establishment of a new right.²⁴⁴ At the same time, it seems likely that Canada—a NATO ally

241. Article 39(1)(c) of UNCLOS requires that "[s]hips and aircraft, while exercising the right of transit passage, shall . . . refrain from any activities other than those incident to their normal modes of continuous and expeditious transit unless rendered necessary by *force majeure* or by distress." UNCLOS, *supra* note 59, art. 39, para. 1. As pointed out succinctly by O'Connell, "since submarines are by definition underwater vehicles, submerged passage is a 'normal mode' of operation for such craft." O'CONNELL, *supra* note 219, at 333 (citing William T. Burke, *Submerged Passage Through Straits: Interpretations of the Proposed Law of the Sea Treaty Text*, 52 WASH. L. REV. 193 (1977)).

242. This information was obtained by the authors through confidential interviews with current and former Canadian and U.S. officials, including one former U.S. submariner who has sailed through the Passage below the ice.

243. See J.F. Burns, *Canada Plans Big Buildup for its Sub Fleet and Army*, N.Y. TIMES, June 6, 1987, at 1.3 (discussing Canada's announcement to increase military spending); Philip Shabecoff, *Reagan Rejecting Navy's Advice, Promises Canada Sub Technology*, N.Y. TIMES, Apr. 28, 1988, at A1 (discussing opposition from US Navy officers); Paul Lewis, *Military Buildup in Canada Falls Victim to Budget Cuts*, N.Y. TIMES, June 30, 1989, at A7 (discussing Canada's decision to scale back its proposed military buildup).

244. North Sea Continental Shelf (F.R.G. v. Den.), 1969 I.C.J. 44 (Feb. 20).

of Britain, France, and the United States—has known about at least some of the submarine voyages and simply kept quiet.²⁴⁵ Such a combination of knowledge and acquiescence could prove fatal to Canada's legal position were evidence of it made public, since this would establish actual non-consensual usage of the Northwest Passage by international shipping.²⁴⁶

However, it is just as likely that any U.S. (and probably NATO) submarine traffic takes place on a pre-negotiated basis similar to that set out in the 1988 Arctic Cooperation Agreement.²⁴⁷ If the governments sending submarines through the Passage have already agreed with Canada that the voyages are without prejudice to the dispute, Canada's legal position will not be affected.²⁴⁸ It is even conceivable that permission has regularly been sought and received—in which case the voyages, if publicly acknowledged, would actually strengthen Canada's legal position. But the issue of submarine voyages remains off the table, legally speaking, as long as the countries involved continue to treat such activity as officially secret—as it appears they all intend to do.

Much more apparent and immediately relevant are the environmental risks presented by commercial surface shipping in a region where ecosystems are already under acute stress from climate change.

245. See Terry Fenge, *Submarines and Arctic Sovereignty*, GLOBE AND MAIL (Toronto), Feb. 10, 1996, at D. On June 3, 1995, then-Defence Minister David Collenette told a parliamentary committee: "I believe we have a novel diplomatic arrangement with the United States under which they inform us of activities of their nuclear submarines under the ice, which enables us to at least say they are doing it with our acquiescence." *Id.* Fenge also reports that Mr. Collenette repeated this position in the House of Commons on November 6, 1995, before retracting it in a letter to Jay Hill, an opposition MP, on January 26, 1996. In the letter, the minister wrote:

There is no formal agreement covering the passage of any nation's submarines through Canadian Arctic waters. However, as a country that operates submarines, Canada does receive information on submarine activities from our Allies. This information is exchanged for operational and safety reasons with the emphasis on minimizing interference and the possibility of collisions between submerged submarines.

Id.

246. See Pharand, *supra* note 97, at 7 (discussing the necessity, in order to claim historic title over a maritime area, of imposing authorization requirements on foreign ships that wish to enter the area).

247. See *supra* text accompanying notes 149–54.

248. See, e.g., *supra* text accompanying notes 136–45; see also Rob Huebert, *Climate Change and Canadian Sovereignty in the Northwest Passage*, ISUMA CAN. J. POL'Y RES., Winter 2001, at 86, 89–91, available at http://www.navyleague.ca/eng/mal/papers/huebert_e.pdf (outlining the Canada-US agreements over the Northwest Passage and their effects on the dispute over the legal status of the passage).

VI. PROTECTING THE ARCTIC MARINE ENVIRONMENT

The Arctic marine ecosystem is one of the most fragile on Earth.²⁴⁹ Arctic species have features and life cycles that reflect an adaptation to life on and under the sea-ice.²⁵⁰ Unique forms of algae and bacteria are active below and in cracks between the sea-ice at temperatures as low as eight degrees below zero (Fahrenheit). They are fed upon by miniature crustacean which, in turn, are consumed by Arctic cod, a species of fish that is able to synthesize antifreeze proteins in its blood.²⁵¹ The cod are in turn preyed upon by ringed seals, which give birth and nurse their pups in dens inside sea-ice ridges.²⁵² The seals then provide the main food source for two dominant predators: polar bears and the Inuit, both of which are perfectly adapted to find and kill seals in the whiteness of the pack ice.²⁵³ The shortness of the food chain, the remarkable specialization involved, and the near total reliance on a precarious ice-water balance measured in fractions of a degree of temperature all combine to make the Arctic marine ecosystem almost uniquely susceptible to disruption and destruction.

Any shipping involves the danger of accidents, especially in remote and incompletely charted waters: An oil spill in the Northwest Passage could cause as much damage as the *Exxon Valdez* and be more difficult to clean up.²⁵⁴ Large ships emptying their ballast tanks as they enter these shallow waters could introduce destructive foreign species, such as fish parasites or poisonous algae, causing damage on a scale comparable to what the Zebra Mussel has done to North America's Great Lakes.²⁵⁵ Increased shipping could also disturb mating, birthing, or nursing of whales in key habitats such as Lancaster Sound at the eastern end of the Northwest Passage.²⁵⁶

249. See generally ACIA, *supra* note 10, at 454–521 (detailing the various natural and man-made forces that can tamper with the sensitive ecosystem).

250. Barber et al., *supra* note 34, at 67.

251. *Id.*

252. *Id.*

253. *Id.* at 67–68.

254. The *Exxon Valdez* oil spill was the most devastating oil spill ever to occur at sea. See National Oceanic And Atmospheric Administration, *Prince William's Oily Mess: A Tale of Recovery*, <http://oceanservice.noaa.gov/education/stories/oilymess/welcome.html> (last visited Oct. 9, 2009).

255. See generally Great Lakes Information Network, *Zebra Mussels in the Great Lakes Region*, <http://www.great-lakes.net/envt/flora-fauna/invasive/zebra.html> (last visited Oct. 9, 2009) (discussing the current research being conducted on the impact of the Zebra Mussels and various solutions being implemented).

256. See Susan E. Cosens & Larry P. Dueck, *Icebreaker Noise in Lancaster Sound, N.W.T., Canada: Implications for Marine Mammal Behaviour*, 9 MAR. MAMM. SCI. 227, 285–300 (1993); Sabine Jessen, *Canada's True North, Strong and Free – and Wild*, Sept. 18, 2007, <http://www.cpawsbc.org/node/187> (last visited Oct. 9, 2009).

The executive summary of the Arctic Marine Shipping Assessment 2009 Report underlines these threats to the Arctic marine environment:

The most significant threat from ships . . . is the release of oil through accidental or illegal discharge. Additional potential impacts of Arctic ships include ship strikes on marine mammals, the introduction of alien species, disruption of migratory patterns of marine mammals and anthropogenic noise produced from marine shipping activity.²⁵⁷

The environmental risks are of great concern to the Inuit. When we asked Maria Kripanik, the deputy mayor of Igloolik, about the possibility of increased shipping through the Northwest Passage, her first thought was for “our animals.”²⁵⁸ The waters of Foxe Basin, she explained, are home to beluga whales, ringed seals, and walrus—all of which the Inuit depend on for food.²⁵⁹ The Inuit are a maritime people, as reflected in the fact that all but one of the communities in Nunavut are located on the seacoast.

Inuit hunters are not merely concerned about the disruption to marine species and their hunting practices that would inevitably follow an oil spill. As the AMSA Report highlights, many local Arctic residents depend on marine resources for subsistence and the local economy: “[O]ver-the-ice travel and boat transport allow the use of large marine areas during much of the year. Such life in the Arctic is dependent on movement over the ice and ocean and sea ice is integral to this movement.”²⁶⁰

A. *The Need for National Jurisdiction*

The success of efforts to protect the Inuit and their fragile, already stressed environment could depend, in large part, on whether the zones being protected fall within Canadian jurisdiction. Most efforts at protecting the environment within internationalized zones have had limited success. Illegal, unreported, and unregulated (IUU) fishing has, in the words of one recent report, “proved stubbornly resistant to international attempts to control it.”²⁶¹ Efforts to protect

(discussing the need to protect arctic species); *see also infra* text accompanying notes 279–80 (discussion of Lancaster Sound as a possible World Heritage Site).

257. ARCTIC COUNCIL, *supra* note 37, at 4.

258. Interview with Maria Kripanik, Deputy Mayor, Igloolik, in Igloolik, Nunavut, Canada (Oct. 24, 2006).

259. *Id.*

260. ARCTIC COUNCIL, *supra* note 37, at 4.

261. Recent studies put the worldwide value of IUU catches between \$4 billion and \$9 billion a year, with \$1.25 billion coming from the high seas and the remainder being taken from the exclusive economic zones of coastal States. HIGH SEAS TASK FORCE, CLOSING THE NET: STOPPING ILLEGAL FISHING ON THE HIGH SEAS 3 (2006), available at <http://www.high-seas.org>.

and stabilize the atmosphere—the thin, life-giving skin of the planet—have proven similarly ineffective, with the atmospheric concentration of carbon dioxide increasing from 356 parts per million (ppm) in 1992 (when the UN Framework Convention on Climate Change was adopted) to 385 ppm in 2008.²⁶²

In general, efforts to protect the environment within national jurisdictions have a better track record—though political will is still necessary, of course. Canada and the United States have successfully cooperated to save the whooping crane and other migratory bird species from extinction,²⁶³ slow the decline in West Coast salmon stocks,²⁶⁴ and protect the biota of trans-boundary lakes and rivers.²⁶⁵ But they have only been able to do so because of their unquestioned authority to regulate activities and enforce compliance within their territories and under their own domestic legal systems.²⁶⁶

Some experts have focused on multilateral treaties and codes of conduct as a way of dealing with the environmental risks posed by shipping in the Northwest Passage.²⁶⁷ Such an approach can

262. U.S. Dep't of Commerce, National Oceanic and Atmospheric Administration, Trends in Atmospheric Carbon Dioxide- Mauna Loa, ftp://ftp.cmdl.noaa.gov/ccg/co2/trends/co2_annmean_mlo.txt (last visited Oct. 9, 2009).

263. Convention for the Protection of Migratory Birds in Canada and the United States, U.S.-U.K., Aug. 16, 1916, T.S. No. 628, available at http://www.treaty-accord.gc.ca/ViewTreaty.asp?Treaty_ID=101587. In Winter 2006/2007, the number of wild and captive whooping cranes surpassed 500 birds, believed to be the highest number in a century. See Environment Canada, Whooping Crane: Status and Threats, <http://www.mb.ec.gc.ca/nature/endspecies/whooping/db01s02.en.html> (last visited Oct. 9, 2009).

264. Treaty Concerning Pacific Salmon, U.S.-Can., Mar. 18, 1985, T.I.A.S. No. 11,091, available at <http://www.psc.org/pubs/treaty.pdf> (including details on the Pacific Salmon Commission, the regulatory agency established by the treaty).

265. Treaty Relating to Boundary Waters, U.S.-Gr. Brit., Jan. 11, 1909, T.S. No. 548, available at <http://www.ijc.org>.

266. For details on the success of these measures see *supra*, notes 262–63 and accompanying text.

267. See, e.g., *Polar Traffic Cops—The Rules for NW Passage Shipping*, 27 N. PERSP. (Canadian Arctic Resource Committee, Ontario, Ottawa, Can.), Spring 2002, at 6, available at http://www.carc.org/pubs/spring2002/CARC_news_spring_02.pdf (discussing the current opportunity to set international rules for Arctic marine travel); see also COMMC'N BUREAU, DEP'T OF FOREIGN AFFAIRS AND INT'L TRADE, THE NORTHERN DIMENSION OF CANADA'S FOREIGN POLICY 5 (2002), available at <http://www.dfait-maeci.gc.ca/circumpolar/pdf/ndcftp-en.pdf>.

Globalization has . . . altered the exercise of state sovereignty, partly through the development of a web of legally binding multilateral agreements, informal agreements and institutions. In the past, much of Canada's attention to northern foreign relations has focused on threats to sovereignty. Time has changed the nature and implication of those threats – cooperation has largely overshadowed boundary disputes in the North. . . . To meet new transborder challenges and further promote co-operation, we will need to intensify dialogue with existing organizations that undertake common action.

certainly supplement national powers, but the negotiation of multilateral instruments involves a complex balancing of many different interests. In the case of any multilateral instrument dealing with Arctic shipping, the result would necessarily be a compromise between shipping and coastal states. As Huebert has explained, “It is possible that the IMO [International Maritime Organization] may, ultimately, create a set of standards equal to those developed in Canada; but, more likely, an internationally established set of standards would not be as stringent on such issues as environmental protection.”²⁶⁸

For the same reason, multilateral instruments often fail to provide effective enforcement powers—especially over activities in internationalized zones. The absence of such powers is most evident in instruments that are not legally binding, since this precludes recourse to adjudication or the adoption of “countermeasures” in the event of non-compliance.²⁶⁹ For instance, a group of state representatives spent a number of years negotiating a mandatory “Polar Code” for shipping under the auspices of the International Maritime Organization.²⁷⁰ Before the document was submitted to the states parties in 2002, however, it was downgraded to a set of guidelines.²⁷¹ Indeed, one of AMSA’s key findings is that “[t]here are no uniform, international standards for ice navigators and for Arctic safety and survival for seafarers in polar conditions. And, there are no specifically tailored, mandatory environmental standards developed by IMO for vessels operating in Arctic waters.”²⁷²

The delay in adopting the Arctic Code is indicative of another problem with multilateral instruments: They often take considerable time to negotiate. With sea-ice disappearing so quickly, time is of the essence. For all these reasons, Canada’s claim that the Northwest Passage constitutes Canadian internal waters provides the best foundation for effective, enforceable environmental protection.

As it happens, environmental protection has always been a motivating factor behind Canada’s claim. The 1970 Arctic Waters Pollution Prevention Act represents thirty-eight years of asserted legislative jurisdiction aimed explicitly at protecting the fragile Arctic marine environment from the risks posed by international

Id.

268. Huebert, *supra* note 41, at 300.

269. See Huebert, *supra* note 248, at 92 (reporting that the voluntary nature of NORDREG suggests Canada questions its own authority to control the Northwest Passage).

270. *Id.* at 87–88.

271. *Id.* (reporting that the opposition to a binding instrument came from the U.S. State Department).

272. ARCTIC COUNCIL, *supra* note 37, at 4.

shipping.²⁷³ The AWPPA also provided the stimulus for the development of treaty law and customary international law supporting the exercise of a heightened degree of regulatory and enforcement power by coastal states in ice-covered areas such as the Northwest Passage.²⁷⁴

B. Article 234 and International Straits

The adoption of Article 234 of the UN Convention on the Law of the Sea was a major success for Canadian diplomacy. Yet it is unclear whether the provision applies in international straits, for the negotiators did not expressly deal with the issue.²⁷⁵ Given the important role of UNCLOS in developing customary international law, the same uncertainty prevails with regard to any parallel customary rule. Arguably, this uncertainty, when combined with the environmental imperative behind the rule, creates a presumption that ice-covered waterways such as the Northwest Passage are *not* international straits, since an international strait in ice-covered waters that was not subject to strict environmental regulation by the coastal state would undermine the purpose of both Article 234 and any parallel customary rule.²⁷⁶

Don McRae goes so far as to argue that the failure of the UNCLOS negotiators to deal expressly with the application of Article 234 to international straits suggests that they did not consider the Northwest Passage to fall within this category:

The ice-covered areas provision also affected a careful compromise on the question of the relationship of the Northwest Passage to the "international straits" regime under the Convention. There was no express provision for excluding the Northwest Passage from that regime, and thus neither the United States nor Canada was required to take a position on the matter. However, the intention of the compromise is readily apparent. The ice-covered areas provision is not included in the sections of part XII of the Convention that are subject to the international straits regime. Since the ice-covered areas provision clearly applies to the Northwest Passage, and since the ice-covered areas provision is not subject to the international straits regime, *ergo* the international straits regime is not applicable to the Northwest Passage.²⁷⁷

273. See *supra* notes 99–104 and accompanying text.

274. See *supra* notes 108–09 and accompanying text.

275. Don McRae, *The Negotiation of Article 234*, in *POLITICS OF THE NORTHWEST PASSAGE* 98, 110 (Franklyn Griffiths ed., 1987).

276. *Id.*

277. *Id.* (citing PHARAND, note 63, at 119–20). Since UNCLOS was negotiated over a period of eight years, it seems unlikely that the failure to deal expressly with the application of Article 234 to international straits was an oversight. At the least, it was an intentional ambiguity that papered over some difference of opinion among the

However, the possibility that Article 234 does not apply in international straits provides another good reason for supporting Canada's position that the Northwest Passage constitutes Canadian internal waters. The absence of the rights under Article 234, or comparable or even stronger rights under domestic law, would seriously compromise efforts to protect the maritime environment in the Arctic waterway at enormous potential risk to wildlife and the Inuit.²⁷⁸

Lately, however, Canada has been dragging its heels on the environmental protection front. For over twenty-five years, Canada and the United Nations Educational, Social and Cultural Organization (UNESCO) have discussed designating Lancaster Sound, the principal eastern entrance to the Northwest Passage, as a World Heritage Site.²⁷⁹ Lancaster Sound is home to endangered bowhead whales; most of the world's narwhals; one third of North America's belugas; walrus; polar bears; ringed, bearded, and harp seals; and millions of seabirds.²⁸⁰ Designating Lancaster Sound a

negotiating states. On intentional ambiguity generally, see Michael Byers, *Agreeing to Disagree: Security Council Resolution 1441 and Intentional Ambiguity*, 10 GLOBAL GOVERNANCE 165, 165–86 (2004).

278. See *supra* text accompanying notes 263–70.

279. As a State Party to the 1972 *Convention Concerning the Protection of the World Cultural and Natural Heritage*, Canada is required to identify the natural sites of outstanding universal value on its territory. Convention Concerning the Protection of the World Cultural and Natural Heritage art. 3, Nov. 16, 1972, available at <http://whc.unesco.org/archive/convention-en.pdf>. However, nominations to the World Heritage List are not considered unless the nominated property has previously been included on the State Party's "tentative list" of the properties it intends to consider for nomination in subsequent years. State Parties are encouraged to re-examine and re-submit their tentative list at least every ten years. Under Canada's original tentative list of world heritage sites (1980), Lancaster Sound was included as part of Sirmilik National Park of Canada (Nunavut). However, this proposal was subsequently abandoned and Lancaster Sound does not at present appear on Canada's updated tentative list of world heritage sites (2004). UNESCO World Heritage Centre, Tentative Lists: Canada, <http://whc.unesco.org/en/tentativelists/state=ca> (last visited Oct. 9, 2009). The Parks Canada's website, in its section on world heritage and natural sites, does indicate that the Northwest Passage was considered as a potential site for the updated tentative list but was ultimately rejected. Parks Canada, Sites Remaining on the 1980 Tentative List, http://www.pc.gc.ca/progs/spm-whs/itm4-/page8_E.asp (last visited Oct. 9, 2009). There are at present no marine World Heritage Sites in the Arctic. UNESCO World Heritage Lists, <http://whc.unesco.org> (last visited Oct. 9, 2009). For a related proposal to designate Lancaster Sound as a National Marine Conservation Area, see Jessen, *supra* note 256. According to Parks Canada, a national marine conservation area proposal for the Lancaster Sound area was prepared in 1987, but the feasibility assessment was suspended at the request of the local Inuit. Parks Canada, Canada's National Marine Conservation Areas System Plan: Lancaster Sound, http://www.pc.gc.ca/progs/amnc-nmca/systemplan/itm1-/arc6_E.asp (last visited Oct. 9, 2009).

280. See Arctic Institute of North America, *Eastern Arctic Marine Environmental Studies Program*, 35 ARCTIC 1 (1982), available at <http://www.arctic.ualgary.ca/>

World Heritage Site would, among other things, facilitate efforts to regulate the routes and frequency of shipping so as to reduce its effect on those endangered mammals.²⁸¹ Even if there is no obligation to take such a measure (and, in our view, there probably is not), doing so—and having it formally accepted by UNESCO—would support Canada’s claim that the Northwest Passage constitutes internal waters subject to Canadian regulation and control.²⁸² However, successive Canadian governments have never pursued the World Heritage Site process to completion, apparently because of concerns that doing so might exacerbate the Northwest Passage dispute with the United States.²⁸³

The less controversial, domestic step of designating Lancaster Sound as a national marine conservation area—the equivalent of a national park—has also been delayed for decades, though Inuit concerns about possible limitations on hunting rights are partly responsible for this.²⁸⁴ In 2007, the federal government allocated \$5 million for a five-year study of whether such a conservation area would be “a practical approach to sustainable management in Lancaster Sound.”²⁸⁵ The answer is probably no, since without the international recognition that comes with a World Heritage Site designation, foreign ships might ignore the domestic environmental protections.²⁸⁶ The creation of a national marine conservation area should be coupled with a push to secure UNESCO designation,

[index.php?page=arctic_contents](#) (this entire issue of the journal relates to the Eastern Arctic Marine Environment Studies Program, with a focus on Lancaster Sound).

281. See, e.g., *supra* text accompanying note 258 (discussing the effects of shipping on whales).

282. One way in which declaring the Northwest Passage a World Heritage Site would assist in Canada’s claim is by furthering their argument that the Inuit’s culture presents a unique “nutritional and cultural dependence,” furthering support for Canada’s “non-historical internal water” claim. See *supra* text accompanying notes 194–99.

283. See *supra* text accompanying notes 134–43 (detailing the current fragile understanding between the United States and Canada); see also *supra* text accompanying notes 99–106 (demonstrating how Canada’s previous attempts to explicitly claim a right to the Northwest Passage have elicited opposition from the United States, disrupting the unspoken compromise).

284. Parks Canada, *supra* note 279.

285. Fisheries and Oceans Canada, Health of the Oceans Initiatives—A Listing by Lead Department or Agency, <http://www.dfo-mpo.gc.ca/oceans/management-gestion/healthyoceans-santedesoceans/initiatives-eng.htm#natmarine> (last visited Oct. 9, 2009).

286. Compare World Heritage Centre, Funding, Reporting and Monitoring, <http://whc.unesco.org/en/118/> (last visited Oct. 9, 2009) (detailing the conservation and monitoring standards of World Heritage Sites), with Huebert, *supra* note 248, at 90–92 (demonstrating foreign treatment of the Northwest Passage when Canada was attempting to govern access without international assistance).

linking the domestic to the international in a mutually supportive way.

Another example of Canadian government foot-dragging concerns NORDREG, Canada's maritime registration system in the Arctic.²⁸⁷ The parallel systems on the Atlantic and Pacific coasts of Canada are mandatory, but the system on Canada's third coast is not.²⁸⁸ This discrepancy is apparently the result of concerns that making NORDREG mandatory might provoke a negative response from the United States.²⁸⁹ Franklyn Griffiths has come to the same conclusion, and he has made the useful suggestion that making NORDREG mandatory is consistent with contemporary U.S. concerns about improving North American security:

At present, reporting by foreign vessels is voluntary in Canada's Arctic waters and mandatory off the east and west coasts, evidently because of Canadian defence to longstanding US sensitivities about the status of the Northwest Passage in law. As a result, Canada does not know as much as it should about passengers, cargo, and vessel purposes. For instance, Canadian officials in Resolute do not necessarily have passenger and crew lists of transiting vessels to check for security purposes and to recheck against passenger lists on the next flights south. Mandatory reporting could, therefore, become part of a systematic Canadian effort to tighten security against terrorist and other threats in northernmost North America.²⁹⁰

In August 2008, during a trip to Inuvik, Northwest Territories, Canadian Prime Minister Stephen Harper announced that his government would in fact be making NORDREG mandatory.²⁹¹ In doing so, he expressly anticipated some diplomatic opposition: "It'll be

287. See Huebert, *supra* note 248, at 92 (NORDEG is a voluntary not mandatory reporting system for vessels that enter the Canadian Arctic waters). For information on NORDREG, see Canada Coast Guard, Vessel Traffic Reporting Arctic Canada Traffic Zone, http://www.ccg-gcc.gc.ca/eng/MCTS/Vtr_Arctic_Canada (last visited Oct. 9, 2009).

288. See Huebert, *supra* note 248, at 92 (explaining NORDREG's lack of enforcement in the Northwest Passage); see also Huebert, *supra* note 41, at 302–03.

Should the owners of any ship decide to enter Canadian Arctic waters and decide to take a chance, it is possible to do so without the Canadian Government being informed. . . . [T]he lack of monitoring by the Canadian Government sends the message that it does not place a high concern regarding ships entering its northern waters.

289. See Huebert, *supra* note 248, at 90–92 (explaining that the United States has previously opposed all previous Canadian efforts to claim the Northwest Passage but has not opposed NORDERG so long as it remains voluntary); see also *infra* text accompanying note 290.

290. Franklyn Griffiths, *The Shipping News: Canada's Arctic Sovereignty Not on Thinning Ice*, 58 INT'L J., Spring 2003, at 257, 272.

291. Andrew Mayeda, *New Arctic Protection Rules Could be a Tough Sell Abroad: Harper*, CANWEST NEWS SERVICE (Ottawa), Aug. 27, 2008, available at <http://www2.canada.com/topics/news/features/arcticambitions/story.html?id=f0020a51-434f-44f6-8408-8c1d18a67c59>.

interesting to see. I expect that some countries may object,” Harper told reporters.²⁹² “I think it ultimately is in everybody’s interest to ensure there is some kind of authority in the area, some kind of environmental and commercial authority. . . . We have no particular power play here.”²⁹³

After the announcement, a spokesperson for the U.S. Embassy in Ottawa said, “we will be discussing the proposal with Canada. We will want to ensure that any enhanced protection of the Canadian Arctic marine environment is achieved in a manner that is consistent with the international law of the sea.”²⁹⁴ The prime minister has delayed instituting his announced regulatory change from that point onwards.

It is not clear that making NORDREG mandatory would in fact challenge the U.S. position that the Northwest Passage is an international strait. As Stuart Kaye explains, Australia obtained International Maritime Organization support for a compulsory reporting scheme in Torres Strait (between Australia and Papua New Guinea) despite that waterway’s undisputed status as an international strait.

It would seem that compulsory reporting does not amount to a restriction preventing vessels from using an international strait, but rather it can be construed as a matter relating to international navigation. While not strictly the designation of sea lanes or a traffic separation scheme, the reporting procedures are certainly directed solely at safety of navigation, and have been approved by the “competent international organization” in the manner outlined in UNCLOS, Article 41.²⁹⁵

The Government of Canada should pursue the support of the IMO for a mandatory version of NORDREG and make the change as soon as possible.

292. *Id.*

293. *Id.*

294. Randy Boswell & Andrew Mayeda, *U.S. Concerned with New Canadian Shipping Rules in Arctic*, CANWEST NEWS SERVICE (Ottawa), Aug. 28, 2008, available at <http://www2.canada.com/topics/news/features/arcticambitions/story.html?id=ddf03f21-1628-4659-aeda-52dfe3635085>.

295. Stuart Kaye, *Regulation of Navigation in the Torres Strait: Law of the Sea Issues*, in NAVIGATION RIGHTS AND FREEDOMS AND THE NEW LAW OF THE SEA 119, 127 (Donald R. Rothwell & Sam Bateman eds., Kluwer Law International 2000).

VII. SECURITY CHALLENGES: FROM THE SOVIET UNION
TO GLOBAL TERRORISM

Soviet submarines in the Northwest Passage posed a serious security threat to both Canada and the United States during the Cold War.²⁹⁶ The ice-covered waterway offered the subs an alternate route between the Arctic and Atlantic Oceans—no small attraction given the amount of NATO attention paid to the Greenland–Iceland–UK gap.²⁹⁷ If Canada and the United States had been able to agree that the Northwest Passage was Canadian internal waters, they would have had a strong legal basis for excluding the Soviets. But while it was a given that Canada would always allow American vessels access, the U.S. Navy was concerned about securing maximum freedom of navigation worldwide.²⁹⁸ It worried that recognizing Canada's claim might create a precedent for coastal state control over other contested waterways.²⁹⁹

In every other respect, the two NATO allies worked closely together to counter the Soviets. They built and operated the Distant Early Warning Line, a string of fifty-eight radar stations stretching from Alaska to Greenland across the Canadian North and directed at Soviet bombers (and, later, intercontinental ballistic missiles).³⁰⁰ It is also well known, though not publicly admitted, that they cooperated in the deployment of underwater surveillance devices at various choke points in the Canadian Arctic Archipelago.³⁰¹ In the early 1980s, the Department of National Defence received a federal land use permit to install a listening device off Skull Point, near the weather station at Eureka.³⁰² According to Coast Guard personnel, such missions frequently used Canadian icebreakers.³⁰³ More recently, the Department of National Defence has been working to replace and improve these systems through the “Northern Watch Technology Demonstration” project, which involves trials of

296. Huebert, *supra* note 41, at 305–06.

297. See Rob Huebert, *Renaissance in Canadian Arctic Security?* 6 CAN. MIL. J. 17, 19–20 (2005–2006) (discussing the details of Soviet use of Northwest Passage during the Cold War and Canadian attempts to address the issue).

298. Huebert, *supra* note 41, at 305–06.

299. *Id.*

300. See generally RICHARD MORENUS, *DEW LINE: DISTANT EARLY WARNING, THE MIRACLE OF AMERICA'S FIRST LINE OF DEFENSE* (1957) (detailing the DEW Line's history and operation).

301. This information was obtained by the authors through confidential interviews with former Canadian and U.S. officials.

302. JOE BALLANTYNE, *SOVEREIGNTY AND DEVELOPMENT IN THE ARCTIC: SELECTED EXPLORATION PROGRAMS IN THE 1980S*, at 8 (2009).

303. This information was obtained by the authors through confidential interviews with Canadian government officials.

underwater and land-based sensors at Gascoyne Inlet on the north shore of Barrow Strait, halfway through the Northwest Passage.³⁰⁴

The submarine threat still exists today, but it pales in comparison to concerns about “rogue states” and terrorist groups using the Northwest Passage to traffic in weapons of mass destruction, equipment for enriching nuclear isotopes, and missiles.³⁰⁵ Unlikely as these risks might seem at first, it is not difficult to imagine a captain in charge of this kind of cargo choosing an ice-free, under-policed Northwest Passage over a closely scrutinized Panama Canal. For this reason, transnational criminal activity and other threats from non-state actors were central to an “Arctic Capabilities Study” conducted by the Canadian Directorate of Defence in 2000.³⁰⁶

Since the attacks on the World Trade Center and Pentagon on September 11, 2001, concerns about global terrorism and weapons of mass destruction (WMDs) have greatly increased. In 2003, the United States led the creation of the Proliferation Security Initiative.³⁰⁷ This cooperative exercise has seen more than sixty countries commit to using their existing rights under international law—within their ports, territorial seas, and on ships carrying their flags—to prevent the use of the high seas as an avenue for proliferating WMDs.³⁰⁸ Canada is one of the participating countries.

An ice-free Northwest Passage could also serve as an entry point into North America for drugs, guns, illegal immigrants, and perhaps even terrorists. Dozens of gravel airstrips are scattered along the waterway, a forgotten legacy of the Cold War and countless research

304. Defence Research and Development Canada, Northern Watch Technology Demonstration—Project Overview http://www.ottawa.drdc-rddc.gc.ca/html/project_overview-eng.html (last visited Oct. 9, 2009).

305. Michael Byers, *Wanted: Mid-Sized Icebreakers, Long-Range Choppers, Perspective*, GLOBE & MAIL (Toronto), June 11, 2009; see also ELINOR C. SLOAN, SECURITY AND DEFENCE: IN THE TERRORIST ERA 80 (2005) (discussing Canada’s need to increase surveillance of the Arctic due to potential terrorist threats); Jim Brown, *Ex-U.S. Envoy Backs Canada’s Arctic Claim*, TORONTO STAR, Aug. 20, 2007, at A17 (acknowledging the threat in the Northwest Passage).

306. The report outlines various techniques to increase surveillance of the Northwest Passage and other Arctic regions in an effort to react to the increased accessibility of the Arctic region. CANADIAN DIRECTORATE OF DEFENCE, ARCTIC CAPABILITIES STUDY, 2, 17–18, (2001), available at <http://www.natice.noaa.gov/icefree/Arctic%20Study%20Final%20-%20Canada1.pdf>.

307. U.S. Dep’t of State, Proliferation Security Initiative Homepage, <http://www.state.gov/t/isn/c10390.htm> (last visited Oct. 9, 2009).

308. *Id.* For more background information on the Proliferation Security Initiative, see Michael Byers, *Policing the High Seas: The Proliferation Security Initiative*, 98 AM. J. INT’L L. 526, 526–45 (2004).

and prospecting expeditions.³⁰⁹ It would be relatively easy to transfer passengers or cargo from an ocean-going vessel to a small plane for transfer to another small airstrip further south. Each summer, cruise ships put hundreds of undocumented foreign nationals on shore at communities such as Pangnirtung, Pond Inlet, Grise Fjord, and Resolute Bay, which have scheduled air service but no immigration controls.³¹⁰

Stories of attempted illegal entries abound in Canada's Arctic. In 1999, the Chinese research icebreaker MV *Xuě Lóng* arrived unannounced in Tuktoyaktuk.³¹¹ When some of the scientists wanted to come ashore, an immigration officer had to fly up from Yellowknife to process them.³¹² In September 2006, a Romanian man sailed a small motorboat from Greenland to Grise Fjord on Ellesmere Island, hoping to fly from there to Toronto.³¹³ The next month, two Turkish sailors jumped ship at Churchill, Manitoba, and bought train tickets to Winnipeg.³¹⁴ There is even a regular charter flight from Frankfurt to Whitehorse that requires the occasional deportation back to Germany from the Yukon.³¹⁵

Having the Northwest Passage recognized as Canadian internal waters would facilitate efforts to prevent the illegal entry of people and goods into North America. Within internal waters, the full force of the coastal state's immigration, customs, and criminal laws apply, and foreign vessels, crews, passengers, and cargo can be closely scrutinized.³¹⁶ Cargo manifests and crew and passenger lists can be required in advance, as can visas, in the same manner as on land.

In contrast, the right of transit passage has almost absolute precedence in an international strait. Under the UN Convention on the Law of the Sea, the coastal state may adopt laws concerning "the loading or unloading of any commodity, currency or person in contravention of the customs, fiscal, immigration or sanitary laws

309. See Arctic Slope Regional Corporation, <http://www.asrc.com/lands/lands.asp?page=entry> (last visited Oct. 9, 2009) (provides a list of gravel airstrips that are closed to public access).

310. Byers, *supra* note 305.

311. Huebert, *supra* note 248, at 87.

312. See *id.* (explaining that local officials in Canada were surprised when the Chinese research vessel arrived).

313. Don Martin, *Invisible Force in the North; Rangers Guard Sovereignty With Old Guns, Radios*, NAT'L POST (Ontario), Oct. 26, 2007, at A5.

314. Joe Friesen, *Ship-Jumping Sailors Spook Arctic Port*, GLOBE & MAIL (Toronto), Oct. 30, 2006, at A13.

315. See Condor Airlines, Flight Search, <http://www9.condor.com/tcf-us/index.jsp> (last visited Apr. 1, 2009) (showing flights from Frankfurt to Whitehorse). Additional information was obtained by the authors through a confidential interview with a Canadian immigration official.

316. See UNCLOS, *supra* note 59, art 2 (implying that a coastal state has complete sovereignty over its internal waters).

and regulations.”³¹⁷ Yet even these laws “shall not discriminate in form or in fact among foreign ships or in their application have the practical effect of denying, hampering or impairing the right of transit passage as defined.”³¹⁸ These limitations are significant, especially for a coastal state seeking to address threats posed by covert, highly sophisticated groups such as drug cartels and Al-Qaeda.

In an interview with the Canadian Press wire service in October 2004, then-U.S. Ambassador Paul Cellucci focused on the security aspect and admitted that U.S. opposition to the Canadian claim over the Northwest Passage was not immutable: “We are looking at everything through the terrorism prism. . . . Our top priority is to stop the terrorists. So perhaps when this . . . is brought to the table again, we may have to take another look at this.”³¹⁹

Later, on March 9, 2005, Cellucci himself wrote on the U.S. Embassy website:

This has been a longstanding disagreement between the United States and Canada. However I was asked the question at the University of Western Ontario by a student who said, would it not be in the security interests of North America for the Northwest Passage to be considered part of Canada and not international waters because then Canada could keep better track of the vessels traveling through its waters? I thought the young man had an excellent question and I have asked people at the State Department to take a look at this, particularly because we do live in the age of the terrorist threat. So it’s not a decision for me to make but I have recommended that we take a serious look at our longstanding policy.³²⁰

We thus know that the State Department has been re-examining the U.S. position. On October 30, 2006, Cellucci—by this point no longer U.S. ambassador—went further, expressing what was clearly his personal opinion.³²¹ At a conference in Ottawa, he said, “It is in the security interests of the United States that it [the Northwest

317. *Id.* art. 42.

318. *Id.*

319. Greg Younger-Lewis, *U.S. Might Be Safer if it Left Northwest Passage to Canada: U.S. Ambassador*, CAN. PRESS NEWSWIRE (Toronto), Oct. 7, 2004.

320. North of Sixty: US Virtual Presence Posts in Canada, Online dialogue with Ambassador Cellucci (Mar. 9, 2005), <http://www.canadanorth.usvpp.gov/yukon/chat.asp>.

321. Daniel Leblanc, *U.S. Reasserts its Position on Northwest Passage*, GLOBE & MAIL (Toronto), Nov. 1, 2006, at A4.

Passage] be under the control of Canada.”³²² We will return to this important point in the conclusion of this Article.

VIII. CANADA’S ENFORCEMENT CAPABILITY IN THE NORTHWEST PASSAGE

For Canada and the United States, shared security concerns necessitate a real and effective presence in the Northwest Passage. For Canada, environmental concerns contribute to the same imperative, as does the need to provide search-and-rescue, navigation assistance, and icebreaking for commercial vessels. Canada also needs to be present to prevent unauthorized crossings by foreign vessels, since any such voyages would weaken its legal claim, a consequence detrimental to itself, the United States, other responsible countries, and reputable shipping companies.

Yet Canada is poorly equipped to police the Northwest Passage. Despite the effects of climate change, the Coast Guard’s relatively light icebreakers still cannot operate in the Northwest Passage in winter; they are redeployed to the Gulf of St. Lawrence each autumn.³²³ The ships are also growing old: The largest ship, the *Louis S. St. Laurent*, was built in 1967, and the *Amundsen* is just a decade younger.³²⁴

In 1985, after the voyage of the *Polar Sea*, the Canadian government announced that it would build a powerful, all-season icebreaker, the *Polar 8*.³²⁵ However, four years later it cancelled the contract, citing the need for fiscal restraint.³²⁶ Despite subsequent

322. *Id.* Cellucci repeated the point on August 19, 2007 in an interview with CTV’s Question Period: “I think, in the age of terrorism, it’s in our security interests that the Northwest Passage be considered part of Canada,” he said. “That would enable the Canadian navy to intercept and board vessels in the Northwest Passage to make sure they’re not trying to bring weapons of mass destruction into North America.” Jim Brown, *supra* note 305.

323. For information on the Canadian Coast Guard’s icebreaking program, see Canadian Coast Guard, http://www.ccg-gcc.gc.ca/ice-gla/main_e.htm (last visited Oct. 9, 2009).

324. Beaufort Gyre Exploration Project, Woods Hole Oceanographic Institute, <http://www.whoi.edu/beaufortgyre/icebreaker.html> (last visited Oct. 9, 2009); CCGS *Admundsen*: Canadian Research Icebreaker, <http://www.amundsen.quebec-ocean.ulaval.ca/amundsenenglish.htm> (last visited Oct. 9, 2009).

325. Randy Boswell, *Short-Sighted Politics, Forgotten Arctic Dreams; The Abandoned Polar 8 Icebreaker Ship Could Have Embodied Canada’s Identity as a Circumpolar Power*, OTTAWA CITIZEN, August 10, 2007, at A5.

326. *Id.* (“[I]n February 1990, Mr. Mulroney’s finance minister, Michael Wilson, announced the death of Canada’s polar ship of state, declaring it strategically obsolete and economically unjustified.”).

years of federal surpluses, the government has not built any new icebreakers in the following two decades.³²⁷

In November 2005, then-Opposition Leader Stephen Harper seized on Arctic sovereignty as an election issue. He promised three armed heavy icebreakers, a deep-water port on Baffin Island, underwater sensors, and Arctic-trained paratroopers.³²⁸ To his credit, he has followed up on several of these promises and has taken some unexpected steps as well.³²⁹

The first unexpected step came in May 2006, when the functions of the bilateral U.S.–Canada North American Aerospace Defence Command were expanded to include surveillance over maritime approaches and “internal waterways.”³³⁰ During the House of Commons debate on the matter, then-Defence Minister Denis O’Connor was asked whether the Northwest Passage was included

327. *Id.*

22 years after former foreign affairs minister Joe Clark committed to spending \$500 million to build the Polar 8 . . . the country will wait at least another five years for the delivery of Mr. Harper's newly promised \$3-billion fleet of limited-range Arctic patrol boats, none with the all-weather capabilities or symbolic power of the Polar 8.

Id.

328. On December 22, 2005, Harper announced a “Canada First” northern strategy that included:

Stationing three new armed naval heavy ice breakers in the area of Iqaluit which will include 500 regular force personnel for crews and support; Building a new military/civilian deep-water docking facility in the Iqaluit area; Establishing a new Arctic National Sensor System for northern waters which will include underwater surveillance technologies; Building a new Arctic army training centre in the area of Cambridge Bay on the Northwest Passage staffed by an estimated 100 regular force personnel; Stationing new fixed-wing search-and-rescue aircraft in Yellowknife; Providing eastern and western Arctic air surveillance through stationing new long range uninhabited aerial vehicle (UAV) squadrons at CFB Goose Bay and CFB Comox; Revitalizing the Canadian Rangers by recruiting up to 500 additional Rangers, increasing their level of training, activity, and equipment; and Providing an army emergency response capability through the new airborne battalion and airlift capacity stationed at CFB Trenton to provide a rapid emergency response capability throughout the entire Arctic region.

Military Muscle: Experts stress the importance of answering Arctic sovereignty questions sooner rather than later, CAN. GEOGRAPHIC, Mar.-Apr. 2006, available at http://www.canadiangeographic.ca/magazine/ma06/indepth/place_sidebar.asp.

329. *Harper Announces Northern Deep-Sea Port, Training Site*, CBC NEWS, Aug. 11, 2007, available at <http://www.cbc.ca/canada/story/2007/08/10/port-north.html>.

330. Agreement on the North American Aerospace Defense Command, U.S.-Can., Apr. 28, 2006, available at <http://www.treaty-accord.gc.ca/text-texte.asp?id=105060>; see also National Defence and the Canadian Forces, NORAD, Backgrounder, <http://www.forces.gc.ca/site/news-nouvelles/view-news-afficher-nouvelles-eng.asp?id=1922> (last visited Oct. 9, 2009) (providing background of NORAD).

within the proposed new arrangement.³³¹ O'Connor initially indicated that it was not, but he rose the next week on a point of order to correct the assertion.³³²

The public agreement to share maritime surveillance within the Northwest Passage reinforces a longstanding practice. Again, it is well known, though not publicly acknowledged, that acoustic devices were placed in the waterway during the Cold War, with full Canadian cooperation.³³³ The fact that Canada is now developing its own acoustic capabilities reflects the age of those existing devices rather than any falling out between the two countries.³³⁴ Indeed, it is possible that the development of a purely Canadian capability was what prompted the expansion of the NORAD agreement.

The second unexpected step came in July 2007, when Stephen Harper announced that six to eight ice-strengthened Arctic Offshore

331. 15 HOUSE OF COMMONS DEBATES (HANSARD) 1870, 39th Parl., 1st Sess. (daily ed. May 3, 2006) (statement of Godon O'Connor, Minister of Defense) (Can.), available at <http://www2.parl.gc.ca/HousePublications/Publication.aspx?pub=hansard&mee=16&parl=39&sess=1&language=E&Docid=2174969&File=0>.

332. 16 HOUSE OF COMMONS DEBATES (HANSARD) 1455, 39th Parl., 1st Sess. (daily ed. May 3, 2006) (statement of Gordon O'Connor, Minister of Defense) (Can.), available at http://www.parl.gc.ca/39/1/parlbus/chambus/house/debates/016_2006-05-04/HAN016-E.htm, Mr. O'Connor stated:

Mr. Speaker, in the Norad agreement we will share information about vessels going through the Great Lakes and the St. Lawrence Seaway. We will not for the Northwest Passage or for our lakes or waters. Those are all our internal waters. We do not share that with the United States.

Id. 18 HOUSE OF COMMONS DEBATES (HANSARD) 1500, 39th Parl., 1st Sess. (daily ed. May 8, 2006) (Can.), available at http://www.parl.gc.ca/39/1/parlbus/chambus/house/debates/018_2006-05-08/HAN018-E.htm. O'Connor stated:

Mr. Speaker, I would like to clarify the remarks I made in question period on Thursday, May 4. My remarks were in response to a question about Norad's information sharing. The maritime aspect of the agreement will give Norad access to data that has been shared between security and defence agencies in North America for several decades. This applies to all Canadian and U.S. waters, including internal waters. Therefore, Canadian internal waters in the Arctic archipelago would also be covered by this agreement. This is nothing new. We already share this type of information with the U.S. The Norad agreement will allow us to better manage this activity. In no way will this provision weaken our sovereignty. Any decision about action in Canadian internal waters will remain Canada's alone.

Id.

333. This information was obtained by the authors through confidential interviews with former Canadian and U.S. officials.

334. Peter Calamai, *Keeping Tabs on the Arctic: As the North Becomes Increasingly Accessible, Stakeholders Focus on How to Control It*, TORONTO STAR, Dec. 16, 2007, at A6.

Patrol Ships would be built for the Canadian Navy.³³⁵ The ships will have some protection against ice, but they are not designed to break it and, for this reason, will not be deployed in the Northwest Passage for most of each year.³³⁶ They will, however, be useful in the Gulf of St. Lawrence, on the Great Lakes, and even in Hudson Bay and Baffin Bay. A senior Canadian Forces officer has confirmed that the military regards the patrol vessels primarily as replacements for the existing *Kingston* class Maritime Coastal Defence Vessels used on Canada's Atlantic and Pacific Coasts, which have no ice-strengthening at all.³³⁷

In August 2007, Harper announced that an existing deepwater wharf at a disused lead and zinc mine at Nanisivik, on northern Baffin Island, would be refurbished to provide an enhanced refuelling facility for Canadian naval and Coast Guard vessels close to the Northwest Passage.³³⁸ Political leaders in Nunavut, who had lobbied hard for a similar facility at Iqaluit, on southern Baffin Island, in order to boost economic development and reduce the high cost of living there, met the decision with dismay.³³⁹

The Prime Minister also announced an expansion of the Canadian Ranger program to 5,000 personnel.³⁴⁰ The program currently includes 4,100 part-time reservists—many of them Inuit, Inuvialuit, or First Nations—who live in 165 hamlets stretching from Baffin Island to the Alaskan frontier.³⁴¹ The Rangers, who are equipped with snowmobiles and old, reliable bolt-action rifles, fulfill essential search-and-rescue and surveillance functions close to where they live.³⁴² They also teach regular Canadian Forces personnel how to survive and travel on the land, especially in winter, and sometimes

335. Stephen Harper, Prime Minister of Can., Speech at Esquimalt, B.C. (July 9, 2007), available at <http://pm.gc.ca/eng/media.asp?id=1741>.

336. David Pugliese, *Tories to Spend \$3.1B on Arctic Fleet*, OTTAWA CITIZEN, July 10, 2007, at A1.

337. DVD: Captain (N) Serge Bertrand, Chief of Staff, Maritime Staff Headquarters, Presentation at U.N.T.D. Rendezvous Ottawa, Senate of Canada (Oct. 20, 2007) (on file with authors).

338. See Stephen Harper, Prime Minister of Can., Speech at Resolute Bay, Nun. (Aug. 10, 2007), available at <http://pm.gc.ca/eng/media.asp?id=1787>.

339. John Thompson, *Deep Port Moving Closer to Reality?* NUNATSIAQ NEWS, Feb. 3, 2006, available at http://www.nunatsiaqnews.com/archives/60203/news/nunavut/60203_03.html; Chris Windeyer, *It's Official: Nanisivik New Port Site*, NUNATSIAQ NEWS, Aug. 17, 2007, available at http://www.nunatsiaq.com/archives/2007/708/70817/news/nunavut/70817_414.html.

340. Harper, *supra* note 338.

341. See Canadian Rangers, <http://www.army.forces.gc.ca/land-terre/cr-rc/index-eng.asp> (last visited Oct. 9, 2009) (providing general information on the Canadian Rangers).

342. See Canadian Rangers, FAQ, <http://www.army.forces.gc.ca/land-terre/cr-rc/faq-eng.asp#02> (last visited Oct. 9, 2009) (explaining what Canadian Rangers do and what equipment they are provided).

lead them on sovereignty ops across the ice and tundra.³⁴³ However, the expanse in which the Rangers operate dwarfs their abilities, and they are neither equipped nor trained to forcibly board ocean-going vessels.

The most significant contribution the Harper government has made to Arctic sovereignty concerns a remote sensing satellite, Radarsat-2. The satellite, owned by MacDonald Dettwiler and Associates (MDA, a private Canadian-owned company), was launched from Kazakhstan in December 2007.³⁴⁴ Canadian taxpayers were the primary source of funding for the satellite, which generates high definition imagery on demand, even at night and through clouds.³⁴⁵ Radarsat-2, designed specifically with the Arctic in mind, is useful for monitoring crops and forests, coordinating disaster relief operations, and supporting fisheries enforcement.³⁴⁶ In a polar orbit 500 miles above the Earth's surface, it is the perfect tool for tracking ships, mapping sea-ice (including during the long, dark polar winter), and even—rumor has it—detecting the wakes of submerged submarines.³⁴⁷

Radarsat-2 was not, however, an initiative of the Harper government, having been built and funded during the Liberal government of Jean Chrétien.³⁴⁸ Moreover, there are possible constraints on Canada's use of the satellite, including an unpublished "annex" to a bilateral treaty that was concluded in 2000 after the United States expressed concern that hostile countries or groups might be able to purchase revealing images of its military facilities

343. See Canadian Rangers, *supra* note 341 (describing the tasks of Canadian Rangers).

344. B. Constantineau, *MDA Breathes Easy with Satellite Launch*, VANCOUVER SUN, Dec. 15, 2007, available at <http://www.canada.com/vancouver/news/business/story.html?id=bceb32a3-3104-44d1-91e9-5ffd8a881297>.

345. See *id.* (discussing how much was spent on satellite and its improvements on previous satellites).

346. Canadian Space Agency, Radarstat-2 Applications, <http://www.espace.gc.ca/asc/eng/satellites/radarsat2/applications.asp> (last visited Oct. 9, 2009).

347. This information was obtained by the authors through a confidential interview with an MDA employee.

348. See Canadian Library and Archives, *First Among Equals: The Prime Minister in Canadian Life and Politics*, <http://www.collectionscanada.gc.ca/premiersministres/h4-3000-e.html> (last visited Oct. 9, 2009) (listing former Prime Minister Chretien's time in office as being from November 4, 1993 to December 12, 2003); Canadian Space Agency, *Canadian Space Milestones*, <http://www.asc-sca.gc.ca/eng/about/milestones.asp#1998>, (last visited Oct. 9, 2009) (detailing the timeline of RADARSAT-2's development, beginning February 27, 1998 when the Canadian Space Agency selected a private company to build the satellite and invested \$225 million into the program).

and forces.³⁴⁹ Washington undoubtedly obtained control of any images of U.S. bases and real or potential theatres of operation, such as Afghanistan, Iraq, and Iran.³⁵⁰ It may also have secured the power to conscript Radarsat-2 in support of its intelligence and military operations.³⁵¹

In January 2008, MDA announced plans to sell its space division, including Radarsat-2, to Alliant Techsystems of Minnesota.³⁵² The proposed sale, and its possible effects on Canada's ability to obtain fine imagery of the Northwest Passage on demand, sparked a firestorm of criticism in Canada.³⁵³ In response, the Harper government extended by thirty days the period for considering the proposed sale under the Investment Canada Act—and then blocked the sale.³⁵⁴

In February 2008, more than two years after Harper promised three new icebreakers, an item appeared in the Canadian federal budget for a large and powerful \$720 million icebreaker.³⁵⁵ Rather than being a naval vessel, the new icebreaker is destined for the Coast Guard, which uses its ships as multipurpose platforms: to clear paths for other ships; maintain navigation devices; provide search and rescue; support research scientists; and assist in the enforcement of fishing and environmental regulations as well as immigration,

349. Richard Sanders, *Canada: A World Leader in the Militarisation of Space*, THE ACTIVIST, Mar. 2006, available at <http://activistmagazine.com/index.php?option=content&task=view&id=796&Itemid=143>.

350. *Id.*

351. MICHAEL BYERS, INTENT FOR A NATION: WHAT IS CANADA FOR? 183–88 (2007).

352. Steven Chase, *Deal Includes Key Satellite*, GLOBE AND MAIL (Toronto), Jan. 10, 2008, at B1.

353. See Scott Brison & Michael Byers, *Keep Radarsat-2 in Canada*, NATIONAL POST, March 24, 2008, at A11 (discussing why sale is a bad idea); Editorial, *Keep Our Satellite in Canada*, TORONTO STAR, Jan. 27, 2008, at A14 (discussing concerns of proposed sale); John Polanyi, *Our Eyes on the World; The Sale of MDA's Space Unit is Shortsighted and Should Not Be Approved by Ottawa*, GLOBE AND MAIL (Toronto), Mar. 18, 2008, at A19 (discussing the decision not to approve the sale of MDA).

354. See Brison & Byers, *supra* note 353, at A11 (discussing government's decision to take an extra 30 days); Michael Byers, *For Sale: Arctic Sovereignty?*, THE WALRUS (Toronto), June 2008, available at <http://www.walrusmagazine.com/articles/2008.06-technology-for-sale-arctic-sovereignty-radarsat-md-michael-byers/> (explaining why taking an extra 30 days was a good idea); Andrew Mayeda & Randy Boswell, *Part 2: Tough Talks into National Pride*, CANWEST NEWS SERVICE, Aug. 16, 2008, available at <http://www2.canada.com/topics/news/features/arcticambitions/story.html?id=352b8bf7-b6b3-46a3-8334-29712adb43ce> (explaining that the sale was ultimately blocked).

355. Bob Weber, *Budget's 'Anywhere, Anytime' Icebreaker Welcomed, If It Gets Built: Experts*, EAST OTTAWA STAR, Feb. 27, 2008, available at <http://www.eastottawa.ca/article-cp97865034-Budgets-anywhere-any-time-icebreaker-welcomed-if-it-gets-builtexperts.html>.

customs, and criminal laws.³⁵⁶ However, the icebreaker is not due to be operational until 2017, by which point the latest scientific projections suggest the Arctic may already have experienced a complete summer melt-out of sea-ice.³⁵⁷ As a result, the main obstacle to shipping—thick, hard “multi-year” ice—will have disappeared. From that point onwards, the Northwest Passage will resemble the Gulf of St. Lawrence, where mid-sized icebreakers are sufficient, and the planned vessel may be overkill.

Surprisingly, the Harper government has paid almost no attention to the military’s most important function in the Arctic, namely search-and-rescue. Four old, slow Twin Otter aircraft based in Yellowknife constitute the entirety of the Canadian Forces Arctic fleet. C-130 Hercules cargo planes based in Trenton, Ontario, used for most of the serious search-and-rescues, take six hours to reach the Northwest Passage and, once there, can only drop search-and-rescue technicians (SAR-techs), rather than hoist anyone on board.³⁵⁸ “None of the Canadian Forces’ Cormorant search-and-rescue helicopters is Arctic-based, not even in summer.”³⁵⁹ Helicopters have to be deployed on specific missions from southern locations, as was the case in February 2007, when an aircraft from Comox, in southwestern British Columbia, flew thousands of miles to rescue an Inuvialuit hunter trapped on an ice-flow at the western end of the Northwest Passage.³⁶⁰

Increased shipping will likely result in an increased number of accidents, many of them in isolated locations and cold temperatures. Cruise ships are a particular concern because of the large number of older passengers often on board. When the German-owned *Hanseatic* went aground near Cambridge Bay in 1996, all of the passengers had to be evacuated.³⁶¹ In November of 2007, the Canadian-owned M/V

356. Canadian Coast Guard, Our Fleet, http://www.ccg-gcc.gc.ca/eng/CCG/Our_Fleet (last visited Oct. 9, 2009).

357. David Shukman, *Arctic to be ‘Ice-free’ in Summer*, BBC NEWS, Oct. 14, 2009, <http://news.bbc.co.uk/2/hi/science/nature/8307272.stm> (suggesting that “the Arctic Ocean could be largely ice-free . . . in as little as ten years time”).

358. Michael Byers, Professor and Can. Research Chair of the University of B.C., Testimony Before the Standing Committee on National Defence, Canadian House of Commons, 2nd Sess., 40th Parliament (June 2, 2009), available at <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=3948396&Language=E&Mode=1&Parl=40&Ses=2>; see, e.g., Joe Friesen, *Heroes From the Sky*, GLOBE AND MAIL (Toronto), Feb. 20, 2007, at A1 (stating that it took more than 6 hours for Canadian Forces C-130 Hercules to go from Winnipeg to the Northwest Passage).

359. *Id.*

360. See Friesen, *supra* note 358, at A1 (helicopter dispatched from Winnipeg).

361. See F. McCague, *High Arctic Grips a Cruise Ship: Hundreds Evacuate by Dinghies as Tugs Try to Free the Hanseatic*, 23 ALBERTA REP. 15, Sept. 16, 1996, (describing the event); see also *Global Process, Community Impact*, N. PERSP. (Canadian Arctic Res. Comm., Ottawa, Ont.), Spring 2002, at 8, available at

Explorer sank during an Antarctic voyage after hitting a small iceberg; fortunately, the sea was calm, two other cruise ships were close by, and all the crew and passengers survived.³⁶² The M/V *Explorer*, a frequent visitor to Arctic waters, could just as easily have sunk in the Northwest Passage in rough seas with no help within hours or days.

Search-and-rescue is also needed for airplane accidents, some of which could require large-scale deployment. In 1991, a Canadian Forces Hercules crashed twelve miles from Canadian Forces Station Alert on Ellesmere Island, killing five of the eighteen passengers and crew.³⁶³ The thirteen survivors endured two days in a raging blizzard before a search-and-rescue team from southern Canada could reach them.³⁶⁴ More than 90,000 commercial flights take “trans-polar” or “high latitude” routes over Canadian territory each year.³⁶⁵ The prospect of a Boeing 777 or Airbus A-340 crash-landing in the High Arctic is terrifying, even if the reliability of such aircraft means the risk is very low.

Improving search-and-rescue capacity in the Northwest Passage would also facilitate the enforcement of Canadian laws and thus the credibility of Canada’s legal position. A long-range helicopter is the perfect platform for boarding ocean-going cargo vessels. Basing one or more of these aircraft in the North, initially during the summer months, would constitute an important part of any serious policy aimed at enforcing Canada’s Northwest Passage claim. As Pharand told Canada’s Standing Senate Committee on Fisheries and Oceans, “[T]he United States will never agree to recognize our full control over those waters unless they know that we have the capability to exercise that control, which we do not have at the moment.”³⁶⁶ Indeed, from a U.S. perspective, Canadian sovereignty combined with

http://www.carc.org/pubs/spring2002/CARC_news_spring_02.pdf (describing another incident involving a foreign sailboat which turned up during the summer of 2001 near Coal Harbour and noting that when boat became stuck, “nobody was available to help.”).

362. Moira Welsh & Emily Mathieu, *Canadian Ship Lost in Antarctic*, TORONTO STAR, Nov. 24, 2007, available at <http://www.thestar.com/News/World/article/279492>.

363. Clyde H. Farnsworth, *After a Plane Crash, 30 Deadly Hours in the Arctic*, N.Y. TIMES, Nov. 5, 1991, at A8, available at <http://www.nytimes.com/1991/11/05/world/after-a-plane-crash-30-deadly-hours-in-the-arctic.html>.

364. *13 Rescued Near North Pole after Plane Crash in Blizzard*, N.Y. TIMES, Nov. 2, 1991, at 1.2.

365. *The Defenceless Arctic*, N. PERSP. (Canadian Arctic Res. Comm., Ottawa, Ont.), Spring 2002, at 13, available at http://www.carc.org/pubs/spring2002/CARC_news_spring_02.pdf.

366. STANDING SENATE COMM. ON FISHERIES AND OCEANS, THE SENATE OF CANADA, RISING TO THE ARCTIC CHALLENGE: REPORT ON THE CANADIAN COAST GUARD 27 (2009), available at <http://www.parl.gc.ca/40/2/parlbus/commbus/senate/Com-e/fish-e/rep-e/rep02may09-e.pdf>.

a lack of enforcement capacity might be worse than a waterway that was wide-open to all. For in an international strait, the United States could at least exert a military presence and, based on the inherent right of self-defense, interdict vessels posing an imminent threat to itself or its citizens.³⁶⁷

A demonstrated Canadian commitment to policing the Northwest Passage—in the form of actual equipment, infrastructure, and personnel—is a necessary part of any diplomatic effort to resolve the legal dispute. Prime Minister Harper has made promises that could help take Canada there; now, his government needs to deliver—including by initiating discussions with Washington.

IX. DIPLOMATIC OPTIONS

There are experts who believe that it would not be in Canada's interest to press its Northwest Passage claim.³⁶⁸ Franklyn Griffiths argues that Ottawa and Washington could just muddle through, disagreeing on the law but cooperating on the practicalities of North American defense and economic development.³⁶⁹ Indeed, he suggests that the United States' willingness to acquiesce to a de facto increase in Canadian control—a consequence of greater concern for homeland security and continental defence offsetting the historical need for naval mobility in distant regions—might be undermined by an attempt to open negotiations on the matter, since this would be to “pick a fight with the U.S. Navy.”³⁷⁰ He even posits that

third parties are unlikely to challenge Canada over the enforcement of Canadian environmental and other laws on foreign commercial vessels in the Archipelago. The third party that took Canada to the World Court would offer a challenge not only Canada, but also the U.S. This it would do in threatening to breach the North American security perimeter by urging an adjudication that ran an international strait through the northernmost part of the continent.³⁷¹

367. See U.N. Charter art. 51 (preserving the “inherent right of individual or collective self-defence”); CHRISTINE GRAY, *INTERNATIONAL LAW AND THE USE OF FORCE* 86–88 (2d ed. 2004) (discussing the ideological split of states in their interpretation of “inherent right” of self defense).

368. See e.g., Franklyn Griffiths, *Our Arctic Sovereignty is Well in Hand*, *GLOBE AND MAIL* (Toronto), Nov. 8, 2006, at A25 (arguing that it is in Canada's best interest not to pursue its claim to the Northwest Passage).

369. *Id.*; see also Griffiths, *supra* note 290, at 257 (revealing an earlier expression of the same view, and some now patently incorrect predictions as to the limited impact of climate change on sea-ice).

370. Griffiths, *supra* note 368.

371. *Id.*

This is an optimistic view for a number of reasons. First, rising temperatures and energy prices seem destined to make the Northwest Passage an important shipping route—including all the environmental and security challenges this will bring. Second, the U.S. Navy is sometimes amenable to changing its positions, as demonstrated by the fact that it now supports U.S. ratification of the UN Convention on the Law of the Sea.³⁷² Third, it is not clear that all third parties will engage in complex calculations of U.S. interests or defer to them. Neighbours and allies might be willing to cooperate while agreeing to disagree, but what about North Korea or Al-Qaeda? Fourth, adjudication is not the only way that Canada's position could be lost. One also needs to ask whether the United States and other countries would look the other way if Canada interdicted a cargo ship—flying a flag of convenience—that entered the Passage without permission. Just a handful of protests, particularly from countries with special interests in the Arctic, could seriously damage Canada's claim.

Other experts, including some within the Canadian Department of Foreign Affairs and International Trade, argue that the status of the Northwest Passage is not so important because, even if it were an international strait, Canada already enjoys all the rights and privileges needed for responsible stewardship.³⁷³ There are several strands to this argument, all of which are problematic. First, it is sometimes suggested that, although Canadian jurisdiction within the Northwest Passage may be limited by the international straits regime, it is not so limited in the approaches to the waterway—where the full force of Article 234 of UNCLOS and the Arctic Waters Pollution Prevention Act applies.³⁷⁴ However, this suggestion conflicts with the official U.S. government position that “transit passage also applies in the approaches to international straits.”³⁷⁵ It also seems inconsistent with common sense, since the right of transit passage within an international strait would be rendered meaningless if a different, more stringent legal regime applied to the approaches.

Second, the argument sidesteps the question of whether Article 234 will apply to waters that, while once ice-covered for most of the year, are progressively rendered ice-free for many months on end. There is nothing in Article 234 to suggest that waters that are subject

372. *Military Officials Urge Accession to Law of Sea Treaty*, FINANCIAL TIMES LIMIATED (Washington D.C.), Dec. 10, 2007.

373. J.L. Granatstein, Comment, *Does the Northwest Passage Still Matter?*, GLOBE AND MAIL (Toronto), Jan. 12, 2009, at A11, available at <http://www.theglobeandmail.com/news/opinions/article965180.ece>.

374. UNCLOS, *supra* note 59, art. 234 (no mention of international straits).

375. ROACH & SMITH, *supra* note 87, at 65.

to greater pollution prevention jurisdiction, because they are covered with ice for most of the year, retain that status if and when the ice disappears for lengthy periods.³⁷⁶ The rights accorded under Article 234 are not vested in the strait itself on an indeterminable basis but flow from the character of the ocean's surface there.³⁷⁷

Third, the argument does not address the issues of whether (1) Article 234 allows Canada to interdict a vessel that is non-compliant with the Arctic Waters Pollution Prevention Act; or (2) enforcement powers are restricted to the period after a pollution incident occurs. Hugh Caminos' discussion of the application of Article 233—a provision which allows for a more limited degree of pollution prevention jurisdiction in non-ice covered waters—to international straits illustrates the seriousness of the issue:

In order for a State bordering a strait to take any enforcement measures under Article 233, there must first be a *direct nexus* between the transiting vessels' violation of Article 42(1)(a) or (b), and the resulting *major damage* to the marine environment of the strait in question. The mere fact [that] a State's laws and regulations enacted pursuant to Article 42 have been breached, *does not ipso facto entitle that State to act* under Article 233. If *actual damage to the marine environment has already resulted*, and it can be linked to a vessel's illegal actions, *then* the "States bordering the straits may take appropriate enforcement measures."³⁷⁸

Mary George comes to an even more restrictive conclusion, arguing that "transit passage cannot be interfered with and . . . appropriate enforcement measures cannot be imposed on user States when in breach of a strait State pollution regulation."³⁷⁹

There is similar uncertainty as to the extent of legislative and enforcement jurisdiction a coastal state can exercise in an international strait for national security reasons. Although Article 39 of UNCLOS states that ships and aircraft, while exercising the right of transit passage, shall "refrain from any threat or use of force against the sovereignty, territorial integrity or political independence of States bordering the strait" and "from any activities other than those incidental to their normal modes of continuous and expeditious transit," nowhere does the Convention specify what the coastal state

376. See UNCLOS, *supra* note 59, art. 234 (failing to discuss retention of status if ice disappears).

377. See *id.* (applying only to ice covered areas).

378. Caminos, *supra* note 222, at 172 (emphasis added).

379. Mary George, *The Regulation of Maritime Traffic in Straits Used for International Navigation*, in OCEANS MANAGEMENT IN THE 21ST CENTURY: INSTITUTIONAL FRAMEWORKS AND RESPONSES 38 (Alex G. Oude Elferink & Donald R. Rothwell eds., 2004); see also *id.* at 24 ("[I]t would be difficult for a strait State to give effect to the laws and regulations adopted under article 42(1) without infringing the limitations in article 42(2) against 'hampering or impairing the right of transit passage.'").

may do in the event of such action.³⁸⁰ To the contrary, Article 44 simply stipulates that “States bordering straits shall not hamper transit passage and shall give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge. There shall be no suspension of transit passage.”³⁸¹ As Stuart Kaye has rightly concluded, “Coastal State rights applicable to transiting vessels are very limited.”³⁸²

The Proliferation Security Initiative does not deal with the issue of international straits at all, thus implicitly suggesting that they are to be treated as high seas for its purposes. The PSI “statement of interdiction principles” calls upon PSI participants to

take appropriate actions to . . . stop and/or search in their internal waters, territorial seas, or contiguous zones (when declared) vessels that are reasonably suspected of carrying such cargoes [of WMD, their delivery systems, or related materials] to or from states or non-state actors of proliferation concern and to seize such cargoes that are identified.³⁸³

Again, the new challenges arising in the Northwest Passage due to climate change can only adequately and definitively be addressed by applying the full range and rigour of a domestic legal system’s environmental, immigration, customs, and criminal laws. As it happens, the Canadian domestic legal system is the only national legal system plausibly available within the waters of the Canadian archipelago. The Canadian government should therefore initiate negotiations with other countries—particularly the United States—aimed at securing widespread recognition of this reality. Any other approach entails risks that cannot responsibly be tolerated, even if it has the short term attraction of requiring little or nothing in terms of policy change.

X. U.S. NAVIGATION INTERESTS

The interests of the United States in the Northwest Passage have changed. Today, Washington is less concerned about Russian submarines than about terrorists finding a backdoor to North America or rogue states using the oceans to transport missiles and WMD. In the Arctic, these new threats would best be dealt with by a strengthened Canadian military and Coast Guard applying the full

380. UNCLOS, *supra* note 59, art. 39.

381. *Id.* art. 44.

382. KAYE, *supra* note 295, at 123.

383. U.S. Dep’t of State, Interdiction Principles for the Proliferation Security Initiative (Sept. 4, 2003), <http://www.state.gov/t/isn/c27726.htm>; *see also* Byers, *supra* note 308, at 530 (discussing the Proliferation Security Initiative).

force of Canadian domestic law. It simply does not benefit the United States—nor other responsible countries and reputable shipping companies—to have foreign vessels shielded from scrutiny and reasonable regulations by maintaining that the Northwest Passage is an international strait.

Access to the waterway is not really an issue, since Canada would never deny entry to one of its allies or a reputable shipping company. 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.”³⁸⁴ Moreover, Canada and the United States are close partners in the shared defence of North America, whether at the level of border security, NATO, or the North American Aerospace Defence Command (again, with the scope of the latter organization having recently been expanded to encompass maritime surveillance, including over the Northwest Passage).³⁸⁵

Although American officials and academics sometimes express sympathy for Canadian concerns about the Northwest Passage, they invariably see an insurmountable obstacle to any change in the U.S. position that recognizing Canada’s claim could jeopardize U.S. access to key waterways in other parts of the world. The concept of the freedom of the seas and the strategic mobility it provides has long been the cornerstone of American policy. The worry is that, if the United States “gives in” over the Passage, countries bordering other straits and channels will feel justified in arbitrarily imposing their own conditions and requirements for navigation.³⁸⁶ In other words, saying “yes” to Canada could create a dangerous precedent.

384. Suzanne Lalonde, *Arctic Waters: Cooperation or Conflict?*, <http://www.thefreelibrary.com/Arctic+waters:+cooperation+or+conflict%3F-a0185210944> (last visited Oct. 9, 2009) (quoting HOUSE OF COMMONS DEBATES 39 (statement of Prime Minister Trudeau Oct. 24, 1969)). Again, in its response to the U.S. diplomatic note in 1970, the Canadian government reiterated “its determination to open up the Northwest Passage to safe navigation for the shipping of all nations, subject, however, to necessary conditions required to protect the delicate ecological balance of the Canadian Arctic.” *Id.* (quoting HOUSE OF COMMONS DEBATES 39 (statement of Prime Minister Trudeau (Oct. 24, 1969))).

385. Agreement on the North American Aerospace Defense Command, *supra* note 330; *see supra* text accompanying note 330.

386. *See* J.L. Granastein, *Does the Northwest Passage Still Matter?*, WESTERN STANDARD CA, Jan. 12, 2009, available at <http://www.westernstandard.ca/website/article.php?id=2948&start=0> (“To concede that Canada controls it can have implications on the other side of the globe, and seafaring states are fearful of a precedent that might let less-responsible nations than Canada close off or seek to exercise control over international sea routes.”).

A. *The Effect of Recognizing Canada's Claim*

Although the fear that recognizing Canada's claim would create a dangerous precedent is understandable, it is misplaced. The Canadian position does not seek to create an exception to the international straits regime. Rather, the position is that the Northwest Passage is not and has never been an international strait. As we demonstrated above, the criteria set out in the *Corfu Channel Case* would seem to support this claim, given the paucity of non-consensual voyages to date.³⁸⁷

Alternatively, the Northwest Passage is readily distinguishable from most real or potential international straits elsewhere because of the historic presence of thick, hard multi-year ice. As was explained above, Article 234 of UNCLOS recognized this distinguishing characteristic; arguably, therefore, both this provision and the Northwest Passage were implicitly excluded from the international straits regime.³⁸⁸

What is more, the statuses of most of the other waterways that the United States sought to maintain as international straits have now been resolved. There are, after all, five different legal regimes for five different types of straits under UNCLOS.³⁸⁹ Long-standing conventions, such as the Montreux Convention with respect to the Bosphorous and Dardanelles, which have operated to the mutual benefit and satisfaction of all the parties involved, regulate a number of important straits.³⁹⁰ As for some of the world's other important straits, some of which have been the source of tension, like the Strait of Malacca or Torres Strait, their statuses as international straits have been officially recognized in bilateral and multilateral treaties. One of the most fundamental precepts of international law, *pacta sunt servanda*, guarantees that the legal rights and obligations under such international agreements must be respected.³⁹¹

A bilateral agreement between Canada and the United States could not destabilize these other treaty regimes. To the contrary, a bilateral Canada–U.S. agreement, especially if followed by a dozen or more identical bilateral agreements between Canada and other allies, would at least partly remove the Northwest Passage from the realm of customary international law and subject it to a new *sui generis* regime. A bilateral treaty could even explicitly foresee its use as a

387. See *supra* pp. 1172–75.

388. See *supra* Part VI.B.

389. See UNCLOS, *supra* note 59 (throughout the convention discusses five different types of straits).

390. See CHURCHILL & LOWE, *supra* note 223, at 95–96.

391. Vienna Convention on the Law of Treaties, art. 26, May 23, 1969, 1155 U.N.T.S. 331.

template for identical or similar bilateral treaties between one of the parties and another state or states—just as was done in the ship boarding treaty concluded between the United States and Liberia as part of the Proliferation Security Initiative.³⁹²

Finally, the sheer volume of maritime traffic in these other waterways guarantees their subjection to the right of transit passage, regardless of what transpires in Canada's North.

In reality, the resolution of the Northwest Passage dispute has possible consequences for the status of only one other waterway: the Northern Sea Route. However, ice conditions are changing so quickly on the Russian side of the Arctic Ocean that any ship wanting to sail along the northern coast of Russia will soon, if not already, be able to sail northwards of the Russian islands that create the channels that form the Northern Sea Route and fall within the Russian claim.³⁹³ Moreover, it is inconceivable that the United States would physically challenge Russia—a nuclear weapon state with considerable conventional forces—in that waterway. For these reasons, Washington has to ask itself whether maintaining a legal position of no real utility along the northern coast of Russia is worth the security risk, from non-state actors, that will likely arise along the northern coast of its own continent if the Northwest Passage is treated as an international strait.

The uniqueness of the situation helps explain why former U.S. Ambassador Paul Cellucci has called for Washington to recognize Ottawa's claim.³⁹⁴ There is, in fact, nothing for the United States to lose and much for it to gain. Neither the United States nor Canada can afford any delay. Whether we like it or not, the Arctic ice is melting quickly; an international shipping route will appear along North America's longest coastline, and a backdoor to the continent will suddenly be ajar.

The Canadian government, instead of hoping that silence will somehow secure its legal position, should be seeking ways to make that position work for the United States, other responsible countries, and reputable shipping companies. Cellucci's request that the State Department re-examine the longstanding U.S. position has created an opportunity to initiate bilateral negotiations that still could and should be seized upon. However, finding our way to an agreement

392. See Agreement Concerning Cooperation To Suppress the Proliferation of Weapons of Mass Destruction, Their Delivery Systems, and Related Materials By Sea, U.S.-Liber., Feb. 11, 2004, available at <http://www.state.gov/t/isn/trty/32403.htm>.

393. Seth Borenstein, *In Warming Arctic, 2 German Ships Traversing Northeast Passage*, Breaking News 24/7, Sept. 11, 2009, <http://blog.taragana.com/n/in-warming-arctic-2-german-ships-traversing-northeast-passage-166085/> (last visited Oct. 9, 2009) (showing the current commercial viability of the Northern Sea Route).

394. See discussion *supra* p. 1190.

will also require two separate but related tracks of confidence-building: on the one hand, a significant strengthening of Canada's policing, search-and-rescue, icebreaking, and other capabilities along the Northwest Passage; and on the other hand, improved cooperation between the two countries with respect to the challenges posed by shipping across the North. All of which requires coordination based on sustained diplomatic engagement.

XI. MODEL NEGOTIATION ON NORTHERN WATERS

Paul Cellucci might well have been offering to negotiate when, in October 2004, he commented that "perhaps when this [the Northwest Passage] is brought to the table again, we may have to take another look."³⁹⁵ Yet the Canadian government seems to have made no effort to look beyond the now slightly opened door. Canada did not step forward until August 2007, abruptly and at the highest of levels, when Prime Minister Stephen Harper told President George W. Bush about Cellucci's expressed views.³⁹⁶ Without any preparatory diplomacy, the news fell on deaf ears.

It was in this context that the authors of this Article contacted Cellucci and suggested a "model negotiation" to delineate a path for official diplomacy. He agreed, and, on February 18 and 19, 2008, we met in the boardroom of the Canadian Section of the International Joint Commission in Ottawa. The venue was chosen for its symbolic value, with the IJC representing a century of institutionalized bilateral cooperation concerning issues of sovereignty, environmental protection, shipping, and water-use along the U.S.–Canada border, including in the Great Lakes.³⁹⁷

Two teams of non-governmental experts provided backup for us.³⁹⁸ Our goal was to discuss issues, identify possible solutions, and make joint recommendations—aimed at both governments—concerning navigation in Northern waters, including but not limited to the Northwest Passage.

We began by agreeing on the reasons for the urgent need for government-to-government talks. As was explained above, increased

395. *Id.*

396. *No US-Canada Thaw on Arctic: Officials*, AGENCE FRANCE PRESSE, Aug. 20, 2007; Tonda MacCharles & Bruce Campion-Smith, *Troops Out by '09, Bush Told*, TORONTO STAR, Aug. 21, 2007, at A1.

397. See International Joint Commission, *Who We Are*, http://www.ijc.org/en/background/ijc_cmi_nature.htm (last visited Oct. 9, 2009) (describing the role of the International Joint Commission).

398. See *Who Owns the Arctic?*, Model Negotiation on Northern Waters, Feb. 19, 2008, <http://byers.typepad.com/arctic/model-negotiation-on-northern-waters.html> (last visited Oct 9, 2009) (providing a list of all participants).

northern shipping will bring heightened security risks, ranging from drug smuggling and illegal immigration to nuclear trafficking.³⁹⁹ There will also be greater environmental risks, most notably with respect to oil spills.⁴⁰⁰ We also agreed that the long history of U.S.–Canada cooperation in the Arctic indicates the potential for bilateral agreement. So too does the history of cooperation on shipping through other waters under national jurisdiction, including the St. Lawrence Seaway, the Great Lakes, and the Juan de Fuca region between Vancouver Island and Washington State. This potential became even clearer by the end of the day-and-a-half long exercise, when we agreed on nine concrete recommendations.⁴⁰¹

Our first recommendation was that the United States and Canada collaborate in developing parallel rules, standards, and cooperative enforcement mechanisms for notification and interdiction zones in the northern waters of both Alaska and Canada. This recommendation would see the United States adopt a mandatory Arctic shipping registration scheme that would protect, among other things, the western approaches of the Northwest Passage, thus keeping suspect vessels at bay and alerting Canada about foreign ships headed its way. It would also enable Canada to change its current voluntary Arctic shipping registration system (NORDREG) into a mandatory scheme without fear of eliciting an American protest.⁴⁰²

Second, we recommended that the United States and Canada share maritime surveillance in northern waters and cooperatively develop further surveillance capabilities. This recommendation is consistent with the May 2006 expansion of the functions of the North American Aerospace Defence Command to include surveillance over maritime approaches and “internal waterways.”⁴⁰³

Third, we recommended that the two countries build on Canada’s already strict Arctic marine environmental protection laws by developing even more advanced navigation, safety and ship construction, and operation standards. This recommendation accepts the legitimacy of the current application of Canada’s Arctic Waters Pollution Prevention Act to the Northwest Passage and seeks to improve upon it, including by promoting the adoption of equally strict rules in the waters north of Alaska.⁴⁰⁴

399. See discussion *supra* notes 309–16 and accompanying text.

400. See discussion *supra* notes 254–56 and accompanying text.

401. See Model Negotiation on Northern Waters, *supra* note 398 (describing the recommendations of two teams of non-governmental experts).

402. See discussion *supra* pp. 1185–86.

403. See discussion *supra* notes 330–32 and accompanying text.

404. See discussion *supra* Part III.C.

Fourth, we recommended that the United States and Canada cooperate on the establishment of shipping lanes, traffic management schemes, and oil spill response plans for the northern waters of both Alaska and Canada. Cooperative oil spill response plans already exists for the Great Lakes, Atlantic and Pacific Coasts, Dixon Entrance and Beaufort Sea,⁴⁰⁵ but planning for cooperative responses to emergencies makes sense across the entire northern coast of North America, since it is a given that assets and personnel will be requested and shared in any serious emergency. Of course, such planning does not infringe on the sovereignty of either state—providing that consent remains a prerequisite for any deployment of assets into foreign waters or onto foreign soil. The same holds true for the establishment of shipping lanes and traffic management schemes, where consultation and coordination—for instance, ensuring that any shipping lanes in the U.S. portion of the Beaufort Sea meet up with the lanes on the Canadian side—is both logical and entirely non-threatening.

Fifth, we recommended that the two countries cooperatively address the immigration and search-and-rescue concerns arising from the increasing number of cruise ships in northern waters. One obvious step would be for each country to require the submission of full crew and passenger lists as part of a mandatory ship registration scheme—consistent with our first recommendation.⁴⁰⁶ The submission of crew and passenger lists would facilitate the full enforcement of Canadian immigration laws, including visa and other documentary requirements, within the Northwest Passage—to the benefit of both countries.

Sixth, we recommended that both Canada and the United States acquire new icebreakers to replace their ageing coast guard vessels. As it happened, just one week after we made this recommendation, the Canadian government set aside \$720 million for a replacement for Canada's largest and oldest icebreaker, the *Louis S. St-Laurent*.⁴⁰⁷ In addition, we recommended that the two countries maximize burden-sharing opportunities with respect to their icebreakers, following the models of a U.S.–Canada icebreaker agreement on the Great Lakes and a similar agreement on the resupply of Thule Air Base in Greenland. Indeed, if the countries engaged in more burden-sharing, the construction of new Canadian icebreakers could reduce the number of ships (and thus the expense) involved in recapitalizing the U.S. icebreaker fleet and constitute a tacit recognition of

405. CANADA-UNITED STATES, JOINT MARINE POLLUTION CONTINGENCY PLAN 3, available at http://www.ccg-gcc.gc.ca/folios/00025/docs/canadaus_pub-eng.pdf (last visited Oct. 9, 2009).

406. See discussion *supra* p. 1207.

407. See Weber, *supra* note 355.

Canada's willingness and competence to manage the Northwest Passage and other northern waters.

Seventh, we recommended that the two countries develop safety infrastructure, including navigation aids and perhaps even new port facilities in support of northern shipping. This recommendation, again, is aimed at promoting U.S. action in the waters north of Alaska that mirrors and supports Canadian action in the Northwest Passage. For though the burden would fall heaviest on Canada, the provision of a safe and economically efficient shipping route through the archipelago—complete with navigation aids, detailed charts, fast and reliable search and rescue, ports of haven, and perhaps even icebreaking for convoys of cargo vessels—would go a long way to securing political and eventually legal support for Canada's claim.

Eighth, we recommended that Canada and the United States make maximum use of the considerable legal powers they already possess over vessels, either sailing to or from Canadian or U.S. ports or registered in one or the other country. This, indeed, has been the focus of the Proliferation Security Initiative, the American-led endeavour which has led sixty countries (including Canada) to exercise their existing rights within their ports, territorial seas, and on ships carrying their flags to prevent the use of the high seas for proliferation purposes.⁴⁰⁸ Most of the cargo vessels using the Northwest Passage will begin or end their voyages in Canadian or U.S. ports, and some will be registered in one or the other country. Instead of exercising these legal powers solely for anti-proliferation purposes, port state and flag state rights should also be put to use in ensuring that vessels in the Northwest Passage and north of Alaska meet and exceed the environmental, safety, and security standards required under Canadian and U.S. law.

Ninth, we recommended the creation of a U.S.–Canada Arctic Navigation Commission to promote dialogue, conduct studies, and make policy proposals on matters of navigation, environmental protection, security, safety, and sustainable economic development. Like the International Joint Commission, this would be a purely recommendatory body, though it could be granted an ad hoc arbitration role if and when the two governments desired.

We did try, during the opening phase of the model negotiation, to achieve a workable resolution of the dispute over the legal status of the Northwest Passage. It soon became clear that this would take longer than the day and a half available to us, which is why we decided to focus on other opportunities for cooperation that could then act as confidence-building steps towards that further goal. However,

408. See *supra* text accompanying notes 307–08.

we were able to agree that the U.S. government should examine the arguments in favor of recognizing Canada's legal position.

The consequences of climate change in the Northwest Passage clearly require serious attention, increased cooperation, and, ultimately, legal reconciliation between North America's two Arctic countries. Our model negotiation demonstrated the potential for constructive engagement between Canadians and Americans on this important issue. Protecting Canada's interests in the Northwest Passage—and the interests of other responsible states and reputable shipping companies—requires a multifaceted approach. We need to invest in infrastructure and enforcement capabilities, reach out to other countries diplomatically, identify common concerns, and use international law in support of imaginative, workable solutions. With the ice disappearing quickly, agreeing to disagree is no longer a viable policy for either Canada or the United States.