

Arctic Shipping – Navigating the Legal Landscape for Marine Infrastructure and Off-Shore Development

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Global Warming and Arctic Navigation

Global warming is transforming the world above the Arctic Circle. According to Environment Canada, the ice in the Canadian Arctic has shrunk by 32 per cent since the 1960s and each year, it shrinks on average by another 70,000 sq km, an area equivalent to that of Lake Superior.¹ Some commentators think that the Northwest Passage will be ice-free in summer as early as 2030.²

Summer-long navigation of the Northwest Passage could reduce transit times of commercial voyages between Europe and Asia by nearly one third, resulting in major savings of time and costs to shippers and ship operators.³ Those savings are beginning to interest maritime business people in the possibility of moving cargoes and passengers by water across the top of the world, at least for a few weeks annually. Yet Arctic navigation is far from easy. Ice cover remains unpredictable. Ice-strengthened vessels are essential, as well as icebreaker assistance. Refueling and ship repair facilities are non-existent in most northern reaches. Navigation charts are inaccurate or outdated. Marine insurance may be unaffordable or unavailable for Arctic voyages. Search and rescue arrangements need to be better organized. And, of course, environmental threats to marine mammals and traditional ways of life of native peoples of the North increase with increased shipping, leading to consternation, protests and even litigation, especially among the aboriginal populations of the areas affected.⁴

¹ See “The Arctic Grail” in CBC National in Depth: Northwest Passage, August 8, 2006, on-line at <http://www.cbc.ca/news/background/northwest-passage/index.html>.

² See “Arctic Ice Could Be Gone By 2030”, Telegraph.co.uk, September 16, 2010; on-line at: <http://www.telegraph.co.uk/earth/earthnews/8005620/Arctic-ice-could-be-gone-by-2030.html>. Some scientists have projected an ice-free summer by 2015. See the *Globe and Mail*, December 12, 2008.

³ See the paper by Frédéric Lasserre of the Department of Geography of Université Laval, entitled “*La souveraineté canadienne dans l’Arctique: la glace est mince*”, on-line at: http://fig-st-die.education.fr/actes/actes_2006/lasserre/article.htm.

⁴ See Aldo Chircop, “The Growth of International Shipping in the Arctic: Is a Regulatory Review Timely?” (2009) *The Int’l J. of Marine and Coastal Law* 356 at 356-359. With respect to the environmental risks of more shipping traffic in the Arctic, see Hannah E. King, “Protecting the Northwest Passage: Assessing the Threat of Year-Round Shipping to the Marine Ecosystem and the Adequacy of the Current Environmental Regulatory Regimes” (2008-2009) 14 *Ocean & Coastal L.J.* 269. See also David L. Vanderswaag & Cinthia Lamson, eds., *The Challenge of Arctic Shipping: Science, Environmental Assessment, And Human Values*, Montreal: McGill-Queen’s University Press, 1990.

Arctic Wealth and Related Shipping Activities

At the same time, the undiscovered mineral wealth “north of 60” is attracting more development to the Arctic. According to the U.S. Geological Survey in 2008, an estimated 90 billion barrels of undiscovered, recoverable oil, 1,670 trillion cubic feet of recoverable natural gas and 44 billion barrels of recoverable natural gas liquids lie north of the Arctic Circle. The Arctic is thus thought to account for about 13 percent of the world’s undiscovered oil, 30 percent of its undiscovered natural gas and 20 percent of its undiscovered natural gas liquids. About 84 percent of those resources are estimated to lie offshore.⁵

Mining on land is also in full swing north of the 60th parallel. In Canada, for example, there are some five mines now in operation in the Northwest Territories and Nunavut and an additional eighteen projected operations in various stages of development.⁶ In Alaska too, zinc, lead and gold mining attained a value of some \$3.1 billion in 2010, providing Alaskans with some 3,872 full-time jobs.⁷ Land-based oil and gas exploration and drilling continue.⁸ Certain produce from these activities is shipped to markets farther south by sea. The classic example is the Trans-Alaska Pipeline, stretching some 800 miles from Prudhoe Bay on the Arctic Ocean to the port of Valdez in southern Alaska, where the oil is loaded aboard tankers.⁹ Some minerals are also exported by water, a good example being the Port of Skagway, which is being enlarged to facilitate the shipment of ore imported from the Yukon.¹⁰ In Canada, an example is the plan of Baffinland Iron Mines Corporation for its Mary River Project on northern Baffin Island in Nunavut, calling for the building of a port on the coast of the Island for the shipment of the ore aboard ice-strengthened carriers to the blast furnaces of Europe.¹¹ There is also the Port of Churchill, Manitoba, and the proposed ports at Bathurst Inlet in Nunavut and Kuujuarapik on Hudson Bay in Québec.

⁵ See the U.S. Geological Survey, “Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle”, 2008. See <http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>.

⁶ The recently-released *Plan Nord* (Northern Plan) of the Québec Government for the development of northern Québec over the next twenty-five years is also largely predicated on the exploitation of the abundant mineral resources of “Nunavik”, as the northern part of the Province is called in Inuit. See <http://www.plannord.gouv.qc.ca/english/index.asp>.

⁷ See Press Release, “Alaska’s Mineral Industry Grows in Strength and Value”, November 9, 2011; online at: http://commerce.alaska.gov/ded/pub/PR-DNR_mining_report_11.9.11.pdf, summarizing the data in the 96-page annual report *Alaska’s Mineral Industry 2010*, published by the Alaska Division of Geological & Geophysical Surveys and the Division of Economic Development of the State’s Department of Commerce, Community & Economic Development. Other minerals mined in Alaska include lead, silver and coal.

⁸ For Alaska, see the website of the Alaska Department of Natural Resources, Division of Oil and Gas, at: http://www.gac.ca/PopularGeoscience/factsheets/ArcticOilandGas_e.pdf.

⁹ Approximately 15,000 tankers have loaded at Valdez since the Pipeline was completed in 1977, including the ill-fated EXXON VALDEZ, which grounded and sank there in 1989, resulting in the adoption by the U.S. Congress of the *Oil Pollution Act 1990* (OPA’90), 33 U.S.C. 2701-2760.

¹⁰ See Alaska House Bill 119 of 2011; Chapter 7 SLA 11, authorizing the Alaska Industrial Development and Export Authority to issue up to \$65 million in bonds to finance major upgrades to the Ore Terminal in the Port of Skagway.

¹¹ See the Baffinland Iron Mines Corporation’s website at <http://www.baffinland.com/>.

In Alaska, the cruise industry is another prominent maritime commerce. Between April and October each year, some 28 cruise ships belonging to nine cruise lines¹² bring to the State approximately 60% of the average annual load of 1.63 million visitors, from Vancouver, Seattle and San Francisco. The visitors, many of whom travel inland to see the magnificent scenery and visit the glaciers, inject an estimated \$767 million into the State's economy, creating approximately 40,000 jobs. Roughly \$1.35 billion has been calculated to result, in direct and indirect benefits to Alaska.¹³ The State also maintains the extensive "Alaskan Marine Highway" ferry system, which carries approximately 350,000 passengers and 100,000 vehicles annually.¹⁴

National Policies and Legal Regimes in the Arctic

Economic, social, technological and environmental changes bring with them new legal challenges. Nowhere is that more evidence than in regard to shipping in and through the Arctic Ocean. The buried wealth of the region has resulted in a number of Arctic States formulating official policies on northern development (applying to both land and water areas).¹⁵ A key aspect of these policies is adopting a legal framework that will facilitate the harmonious development of the vast northern territories concerned and the seas adjacent to them.

Both the Canadian and the American Arctic are already governed by a plethora of laws and regulations. As early as 1970, Canada enacted the *Arctic Waters Pollution Prevention Act* (AWPPA),¹⁶ to control the deposit of waste in Arctic waters (north of the 60th parallel of north latitude) up to 100 nautical miles out to sea, and imposing rigorous sanctions on offenders. In 2009, Canada extended the scope of the AWPPA to the full 200 nautical miles of Canada's Exclusive Economic Zone.¹⁷ Regulations under AWPPA govern Arctic pollution¹⁸ and Arctic shipping¹⁹ in considerable detail.

Other Canadian environmental legislation has an impact in the Arctic, including the *Canada Shipping Act, 2001*²⁰ and the *Marine Liability Act*.²¹ Through this legislative and regulatory scheme, Canada applies many international maritime law conventions to its

¹² The lines are: Carnival Cruise Lines, Celebrity Cruises, Crystal Cruises, Holland America, Norwegian Cruise Line, Oceana Cruises, Princess Cruises, Regent Seven Seas Cruises, Royal Caribbean International and Silversea Cruises.

¹³ See the website of the Alaskan Cruise Association at: <http://www.akcruise.org/group.cfm?menuId=147>.

¹⁴ See http://en.wikipedia.org/wiki/Alaska_Marine_Highway; or <http://www.dot.state.ak.us/amhs/>. The State of Alaska regulates the "AMH" by Chapter 19.65 of the Alaska Statutes.

¹⁵ Norway adopted a High North Strategy in 2006. Russia has studied all possible uses of the Arctic. Canada adopted its Northern Strategy in 2009 and its Arctic Foreign Policy in 2010. In the U.S., former President George W. Bush enunciated an Arctic Region Policy just before leaving office in January 2009.

¹⁶ R.S.C. 1985, c. A-12.

¹⁷ *An Act to amend the Arctic Waters Pollution Prevention Act*, S.C. 2009, c. 11, in force August 1, 2009.

¹⁸ *The Arctic Waters Pollution Prevention Regulations*, C.R.C. 354.

¹⁹ *The Arctic Shipping Pollution Prevention Regulations*, C.R.C. 353.

²⁰ S.C. 2001, c. 26.

²¹ S.C. 2001, c. 6

Arctic waters, such as the CLC 1992 on Civil Liability for Oil Pollution Damage,²² the Fund Convention 1992,²³ the OPRC Convention 1990,²⁴ the Athens Passenger Convention 1974²⁵ and the Bunker Pollution Convention 2001.²⁶

Canada has also taken steps to better control marine traffic in its Arctic waters and through the Northwest Passage, by adopting the *Northern Canada Vessel Traffic Services Zone Regulations*²⁷ under the *Canada Shipping Act, 2001*.²⁸ Vessel Traffic Control Zones (the so-called NORDREG Zone) have been created and came into force July 1, 2010. Vessels are required to report certain information at least 24 hours before entering such a Zone or when they leave port if they are less than 24 hours away from such a Zone. The waters regulated are those located with one or more of the sixteen shipping safety control zones established by government order, as recently amended to extend their boundaries to the full extent of Canada's EEZ.²⁹ Territorial legislation of Nunavut, the Northwest Territories and the Yukon supplements the federal laws and regulations.

In the American North, merchant shipping in, to and from Alaska is subject generally to the general maritime law of the United States (judge-made law), and to various statutes governing different activities and matters of a maritime nature. Among the major U.S. Admiralty statutes are the *Harter Act*,³⁰ the *Carriage of Goods by Sea Act (COGSA)*,³¹ the *Limitation of Shipowners' Liability Act, 1851*,³² the *Merchant Marine Act of 1920*³³ (including the *Jones Act*),³⁴ the *Death on the High Seas Act*,³⁵ the *Salvage Act, 1912*³⁶,

²² International Convention on Civil Liability for Oil Pollution Damage, adopted at Brussels on November 29, 1969 and in force June 19, 1975, 973 UNTS 3, as amended by its Protocol of 1992, adopted in London, November 27, 1992 and in force as of May 30, 1996, 1956 UNTS 255.

²³ International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, adopted in Brussels on December 18, 1971, in force October 16, 1978, 11 ILM 284 (1972), UKTS 95 (1978), Cmnd. 7383, as amended by its Protocol of 1992, adopted in London, November 27, 1992 and in force as of May 30, 1996, IMO Doc LEG/CONF. 9/16; UKTS 86 (1996), Cm. 3433, and as further amended by the Supplementary Fund Protocol 2003, adopted at London, May 16, 2003 and in force March 3, 2005, Misc. 5 (2004), Cm. 6245.

²⁴ The Oil Pollution Preparedness, Response and Cooperation Convention 1990, adopted in London on 30 November 1990 and in force 13 May 1995, 30 ILM 735 (1991), 1891 UNTS 000.

²⁵ Convention Relating to the Carriage of Passengers and Their Luggage by Sea, adopted in Athens on December 13, 1974 and in force as of April 28, 1987, 1463 UNTS 19, 14 ILM 945 (1975), with its Protocol of 1990, adopted in London, March 29, 1990, IMO Doc LEG/CONF 8/10.

²⁶ International Convention on Civil Liability for Bunker Oil Pollution Damage, adopted in London on March 23, 2001 and in force 21 November 2008, IMO LEG CONF. 12/19; OJEC 2002 L 256/7; Misc. 8 (2005), Cmnd 6693.

²⁷ SOR/2010-127 (June 10, 2010), *Canada Gazette*, Part II, vol. 144, no. 13, June 23, 2010, at 1161.

²⁸ S.C. 2001, c. 26.

²⁹ The *Order Amending the Shipping Safety Control Zones Order*, SOR/2010-131 (June 10, 2010), *Canada Gazette*, Part II, vol. 144, no. 13, June 23, 2010, at 1198.

³⁰ 46 U.S.C. 30701.

³¹ 46 U.S.C. Appx. 1300-1315, re-codified at 46 U.S.C. § 30701 Notes, pursuant to Pub.L. 109-304, 120 Stat. 1485 (Oct. 6, 2006)

³² 46 U.S.C. 30501-30512.

³³ 46 U.S.C. Appx. 861-889.

³⁴ 46 U.S.C. 30104.

³⁵ 46 U.S.C. Appx. 761-766.

³⁶ 46 U.S.C. Appx. 729 *et seq.*

the *Federal Bills of Lading Act*³⁷ the *Commercial Instruments and Maritime Liens Act*,³⁸ and the *Oil Pollution Act of 1990*.³⁹ More recent regulation is beginning to be exerted, particularly over the rapidly-developing offshore activities of the oil majors in Alaskan waters.

Nevertheless a number of legal issues of a public international law character remain to be resolved as between Canada and the U.S.A. with respect to the Arctic.

Arctic Sovereignty Issues

There is no question as to the sovereignty of Canada over its northern land territories or of the United States over Alaska. The problem is with the aquatic spaces of the Arctic. Canada regards the Northwest Passage as internal water, subject to exclusive Canadian sovereignty.⁴⁰ The United States, as well as the European Union, take the position that the Northwest Passage is an international strait.⁴¹ The Beaufort Sea is another bone of Canada-U.S. contention. The U.S. contends that the marine boundary between the Canadian and America sectors of that body of water should respect the equidistance principle, following a line at equal distance from the closest land point of each country. Canada, on the other hand, proposes that the maritime boundary runs along the 141st meridian, as an extension of the territorial boundary between the Yukon and Alaska established by an 1825 treaty between Russia and the United Kingdom.⁴² The result will affect who will have eventual control of exploitation rights for minerals and oil and gas in the area.

Failing a negotiated settlement of these issues, the parties are always free to proceed via art. 287 of the United Nations Convention on the Law of the Sea (“UNCLOS”)⁴³ and litigate before the International Tribunal for the Law of the Sea or the International Court of Justice, or arbitrate, in an effort to convince the judges or arbitrators of the merits of the competing claims. In this regard, the importance of the United States becoming party

³⁷ 49 U.S.C. 80107-80116.

³⁸ 46 U.S.C. 31303-31343.

³⁹ 33 U.S.C. 2701-2760.

⁴⁰ See Robert Dufresne, “Canada’s Legal Claims over Arctic Territory and Waters,” Library of Parliament, Document No. PRB 07-39E, December 6, 2007 at p. 15; available online at <http://www2.parl.gc.ca/Content/LOP/ResearchPublications/prb0739-e.htm> and Donald R. Rothwell, “The Canadian-U.S. Northwest Passage Dispute: A Reassessment” (1993) 26 Cornell Intl’l L.J. 331.

⁴¹ Commission of the European Communities, “Communication from the Commission to the European Parliament and the Council: The European Union and the Arctic Region,” November 20, 2008. The EU regards the Arctic as an “open ocean”. See Dorian Prince, Head of the Delegation of the European Commission to Canada, quoted by Mark Iype, “EU’s Arctic Intentions Worry Canadians,” *Embassy*, December 10, 2008.

⁴² Convention between Great Britain and Russia concerning the Limits of their Respective Possessions on the North-West Coast of America and the Navigation of the Pacific Ocean, February 16, 1825, 75 C.T.S. 95.

⁴³ 1833 UNTS 397, ILM (1982) 1261, adopted at Montego Bay, Jamaica, December 10, 1982, which Canada ratified on November 7, 2003. The Convention came into force internationally on November 16, 2004. Unfortunately, the United States has yet to become a party to UNCLOS.

to UNCLOS, so as to be able to take advantage of these optional modes of dispute resolution, cannot be overemphasized.

The Continental Shelf, with the reputedly vast mineral resources of its seabed and subsoil, is another domain of legal controversy involving all Arctic States. UNCLOS, at art. 76, provides a mechanism whereby such States may claim an extended Continental Shelf reaching beyond 200 nautical miles from the baselines used to measure the breadth of their respective territorial seas, up to 350 nautical miles from those baselines. The procedure for making such a claim involves assembling scientific data and submitting it to the United Nations Commission on the Limits of the Continental Shelf within a certain deadline, for study and a (non-binding but highly significant) ruling from that body. Russia, Denmark, and Canada are involved in this process, with Canada's deadline for submission of its claim being 2013. Although the U.S.A. is not a party to UNCLOS, it has participated, along with Canada, in mapping the seafloor and taking images of the sedimentary layers north of Alaska and west of Canada's Arctic islands in what is called the "Canada Basin" of the Arctic Ocean.⁴⁴

Offshore Development Regimes

In Alaska, leasing and operational activities on the Outer Continental Shelf (OCS) are subject to some thirty U.S. federal laws. The main statutes governing resource exploration, development and production are the *Outer Continental Shelf Lands Act*,⁴⁵ the *National Environmental Policy Act*,⁴⁶ the *Endangered Species Act*,⁴⁷ the *Coastal Zone Management Act*,⁴⁸ the *Federal Water Pollution Control Act*,⁴⁹ the *Ports and Water Safety Act*⁵⁰ the *Marine Mammal Protection Act*,⁵¹ the *Clean Air Act*⁵² and the *National Historic Preservation Act*.⁵³

Leasing of offshore drilling sites in the U.S. is subjected to a thorough environmental analysis by the Bureau of Ocean Energy Management, Regulation and Enforcement ("BOEMRE"). This analysis includes many opportunities for public comment. Under the *Outer Continental Shelf Lands Act*, for example, a five-year plan is prepared showing the size, timing and location of leases. The final approval and implementation of the 5-Year Program is subjected to three separate comment periods, two separate draft proposals, a

⁴⁴ See U.S. State Department, "U.S.-Canada Joint Expedition to Survey the Extended Continental Shelf in the Arctic", July 26, 2010. Online at: <http://www.state.gov/r/pa/prs/ps/2010/07/145175.htm>. See also "Mission Plan – 2010 U.S.-Canada Arctic Continental Shelf Survey" at <http://continentalshelf.gov/missions/10arctic/background/plan.html>.

⁴⁵ 43 USC 1331 *et seq.*

⁴⁶ 42 USC 4321-4347.

⁴⁷ 7 USC 136, 16 USC 1531 *et seq.*

⁴⁸ 16 USC 1451-1456.

⁴⁹ 33 USC 1251-1376.

⁵⁰ 33 USC 1221-1236.

⁵¹ 16 USC 1361-1389 and 1401-1423h.

⁵² 42 USC 7401 *et seq.*

⁵³ 16 USC 470 *et seq.*

final proposal and the development of an environmental impact statement (EIS).⁵⁴ Other controls are exerted at subsequent stages of exploration and production. A Safety and Environmental Management System has been made mandatory since the DEEPWATER HORIZON spill in the Gulf of Mexico in 2010, permitting a more accurate evaluation of the risk potential of individual reservoirs, in order to better identify the proper methods and resources required to respond to any potential blowout.

In Canada, offshore oil and gas exploration and exploitation are at a less advanced stage. Nevertheless, the National Energy Board in 2011 released its “Review of Offshore Drilling in the Canadian Arctic”⁵⁵ and the related “Filing Requirements”⁵⁶. These publications provide a basic road-map for exercising effective control over petroleum operations in Canada’s Arctic waters. Drawing on the DEEPWATER HORIZON experience of the U.S., the NRB will require drilling permit applicants in those Canadian waters to provide “same-season relief wells” so as to kill any well that goes out of control during the same drilling season. In addition, safety plans, contingency or emergency plans and environmental protection plans will have to be filed and approved by would-be Arctic drillers.⁵⁷

Aboriginal Consultation

In offshore development, as well as other projects involving encroachment on lands or waters occupied or used from time immemorial by native peoples, both Canadian and American laws and policies now require extensive consultation with the Aboriginal populations concerned. In Canada, the Supreme Court treats this duty as a “super added” requirement and, in certain cases, the duty may extend beyond what is strictly required by statutes to obtain regulatory approvals.⁵⁸ Typically, land claims agreements in Canada will require promoters of any proposed project on the territory concerned to conclude an impact benefit agreement with native populations affected by the project and then to seek approvals by a territorial impact review board (e.g. the Nunavut Impact Review Board), as well as by other boards, depending on the nature and extent of the project in question. An environmental assessment and approval will also often be necessary in this process.

Inuit in the north are also more prepared today to take judicial action to assert their legal rights in defence of their traditional lifestyle and environment. A Canadian example of such action is the successful injunctions proceedings launched in the Nunavut Court of

⁵⁴ See BOEMRE, “Oil and Gas Leasing on the Outer Continental Shelf” at: http://www.boemre.gov/PDFs/5BOEMRE_Leasing101.pdf.

⁵⁵ See <http://www.neb-one.gc.ca/clf-nsi/rthnb/pplctnsbfrthnb/rctcfffshrdrlIngrvw/fnlrprt2011/fnlrprt2011-eng.pdf>.

⁵⁶ See <http://www.neb-one.gc.ca/clf-nsi/rthnb/nwsrls/2011/nwsrls39-eng.html>.

⁵⁷ See “Backgrounder: National Energy Board Report on the Arctic Offshore Drilling Review”, modified March 2, 2012, at: <http://www.neb-one.gc.ca/clf-nsi/rthnb/pplctnsbfrthnb/rctcfffshrdrlIngrvw/fnlrprt2011/bckgrndr-eng.html#s1>.

⁵⁸ This principle has been upheld by Canadian courts in relation to native land claims and consultation on development projects on their lands. See *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73; *Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)*, 2005 SCC 69.

Justice by the Qikiqtani Inuit Association to stop the marine seismic testing proposed by Natural Resources Canada, which had already been approved by the Nunavut Impact Review Board, and which was to have been carried out by the German polar research ship POLARSTERN in Baffin Bay and Lancaster Sound, Nunavut, in the summer of 2010. The Court agreed with the petitioners that the risk of displacement of marine mammals from migration routes and breeding areas and the disturbance of traditional food supply for the Inuit warranted the issuance of an order prohibiting the testing.⁵⁹

In the U.S., extensive Aboriginal consultation with respect to new projects is required by former President Clinton's Executive Order 13175 of November 6, 2000,⁶⁰ as well as by the Millennium Agreement in Alaska.⁶¹ In the American North, first nations have proven adept at using the judicial system to defend their way of life and their environment, as can be seen from one case (among others) where the District of Columbia Circuit held that the Department of the Interior had failed to consider fully the environmental impact of a proposed drilling program and sent the program back to be revised.⁶² Moreover, Alaskan and U.S. federal authorities are gradually making use of traditional knowledge of the native peoples of the State in planning and carrying out projects dealing with Alaskan development.⁶³

International Legal Activity re the Arctic

An increasingly important feature of the legal landscape of marine infrastructure and offshore development in the whole of the Arctic today is the action of two international bodies: the Arctic Council and the International Maritime Organization ("IMO").

The Arctic Council grew out of the Ottawa Declaration of 1996,⁶⁴ as a high-level, intergovernmental forum to foster cooperation, coordination, and interaction among the Arctic States, with the involvement of the indigenous people of the whole circumpolar region. Member States are Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the U.S.A. In addition to the Member States, there are also Permanent Participants, being mostly indigenous peoples' organizations. Chairmanship rotates among the Member States every two years. The organization is headquartered in Tromsø, Norway. Ministerial meetings are held biannually in the country holding the chairmanship. The Arctic Council successfully presided over the adoption of its first international treaty – an agreement on search and rescue services in the Arctic, signed at

⁵⁹ See *Qikiqtani Inuit Association v. Canada (Minister of Natural Resources)*, 2010 NUCJ 12 (Nunavut Court of Justice).

⁶⁰ Federal Register, vol. 65, no. 218 of November 9, 2000, pp. 67249-67252. See <http://www.epa.gov/fedreg/eo/eo13175.htm>.

⁶¹ See <http://www.dot.state.ak.us/cvlrts/forms/Millennium-agree.PDF>. See also Alaska's Administrative Order 186 of April 11, 2001.

⁶² See *Center for Biological Diversity v. United States Department of the Interior*, 563 F.3d 466 (D.C. Cir. 2009).

⁶³ See Bureau of Ocean Energy Management, "About Traditional Knowledge" at <http://www.boem.gov/About-BOEM/Public-Engagement/Tribal-Communities/Alaska/About-Traditional-Knowledge.aspx>.

⁶⁴ See "Declaration on the Establishment of the Arctic Council", Ottawa, September 19, 1996.

Nuuk, Greenland, on May 12, 2011.⁶⁵ The Arctic Council wishes to become a kind of regulatory body for northern waters on both sides of the North Pole, akin to the International Maritime Organization. The Council is also beginning to pay attention to traditional knowledge in the formulation of its policies and recommendations.⁶⁶

In 2009, the Arctic Council, through its Protection of the Arctic Marine Environment (PAME) working group, released a landmark report, entitled “Arctic Marine Shipping Assessment”,⁶⁷ which was the result of intensive studies and consultation carried out in different Arctic states. The Report produced a vast array of recommendations too numerous to list here, including an instrument on cooperation in search and rescue (since adopted); updating of the IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters;⁶⁸ mandatory requirements for ship design, construction, equipment, crewing and training; stronger passenger safety requirements in Arctic waters; and implementing the Ballast Water Convention.⁶⁹

The International Maritime Organization (IMO), for its part, is busy drafting an International Polar Code. Such a Code, which is intended to become mandatory under an amendment to the International Convention on Safety of Life at Sea (SOLAS)⁷⁰ in 2014, will reportedly aim to increase marine safety and environmental protection in all Arctic and Antarctic waters.⁷¹ It will strive to harmonize the national regulatory regimes of the Arctic States governing the design of ice-capable vessels, to set higher levels of ice strengthening for Polar Class ships, and to regulate the training and employment of ice navigators, etc.⁷² The Code will take into account specifics of Arctic navigation, including structural hazards to vessels posed by both glacial and sea ice; the demands of

⁶⁵ Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (the “SAR Agreement”). This Agreement is the first legally binding treaty to have been developed by the Arctic Council since its creation in 1996. For the text, see:

http://arctic-council.npolar.no/accms/export/sites/default/en/meetings/2011-nuuk-ministerial/docs/Arctic_SAR_Agreement_EN_FINAL_for_signature_21-Apr-2011.pdf.

⁶⁶ See “Sea ice project will help bring Inuit knowledge into Arctic Council: ICC”, Nunatsiaq Online March 29, 2012, online at:

http://www.nunatsiaqonline.ca/stories/article/65674sea_ice_project_will_help_bring_inuit_knowledge_into_arctic_council_ic.

⁶⁷ See http://arcticportal.org/uploads/L9/LP/L9LPqHzJZ88Zp4EOdasTcA/AMSA_Scenarios_NEW.pdf.

⁶⁸ International Maritime Organization, Resolution A.1024(26) of December 2, 2009. See

http://library.arcticportal.org/1475/1/A.102426_Guidelines_for_ships_operating_in_polar_waters.pdf.

⁶⁹ The International Convention for the Control and Management of Ships’ Ballast Water and Sediments, adopted at London, February 13, 2004, not yet in force.

⁷⁰ 1184 UNTS 2, UKTS 46 (1980), Cmnd 7874, 14 ILM 959, adopted at London, November 1, 1974 and in force May 25, 1980.

⁷¹ The Code is being developed through the Sub-Committee on Ship Design and Equipment of IMO’s Marine Environment Protection Committee (MEPC). At the MEPC’s 63rd session in London (February 27 to March 2, 2012), it was agreed that the eventual Code will include an environmental protection chapter. See <http://www.imo.org/mediacentre/pressbriefings/pages/09mepc63ends.aspx>. The difficulty of balancing shipping interests against environmental interests is causing delays in the drafting of the Code. See CBC News North, March 1, 2012, “International shipping code delayed”, at <http://www.cbc.ca/news/canada/north/story/2012/03/01/north-polar-code.html?cmp=rss>.

⁷² See Canadian Coast Guard, “Ice Navigation in Canadian Waters, Chapter 5: Shipping in the Canadian Arctic, Section 5.2: International Code of Safety for Ships in Polar Waters”, online at: <http://www.ccg-gcc.gc.ca/e0010980>.

navigation, communications, lifesaving and fire-fighting in conditions of extreme cold; safety in emergency situations; and training and operational procedures. The International Association of Classification Societies will develop unified requirements relating to structural design of ships and their machinery requirements. Ice navigators will require to be carried aboard vessels transiting Arctic waters, and their qualifications and training will be regulated. Seven proposed “Polar Classes” of vessels will be established.

In 2010 in Ottawa, the Arctic Regional Hydrographic Commission was established. It is a body set up by five of the eight Arctic Council States: Canada, Denmark, Norway, the Russian Federation and the United States, under Canada’s leadership.⁷³ This action should pave the way for developing up-to-date navigational charts and related new technologies, thus making Arctic navigation (which has doubled since 2005) safer, and encouraging new Arctic shipping initiatives on both sides of the North Pole.

Conclusion

The legal landscape governing Arctic shipping in North America was already dotted with a multitude of laws, regulations and policies emanating from the federal governments of the United States and Canada and from the legislatures of Canada’s three northern territories and the State of Alaska. Some international conventions also applied, notably in Canadian waters. In recent years, global warming, the melting of the ice pack and the prospective increase in maritime activity in the Arctic, combined with the heightened push to access and extract the fabulous natural resources to be found there, have caused that legislative landscape to grow denser and more colourful. Safety regulations are being put in place for northern shipping traffic control and pollution prevention rules continue to evolve and expand their scope of application. Particular controls are being applied under U.S. legislation, and are being designed by Canada as well, to address the special challenges posed by offshore drilling for oil and natural gas in Arctic seas. Consultations with local and Aboriginal populations on development projects of all kinds, including marine ones, have become ever more important, even as Aboriginal peoples have become more strident and effective in defending at law their territories and their rights to an historic way of life, now sometimes threatened by new economic ventures designed in the south. Longstanding legal issues of sovereignty over certain northern waters and the Continental Shelf remain to be resolved, but a number of mechanisms for doing so are provided by UNCLOS in accordance with customary and codified international law. Meanwhile, the Arctic Council and the IMO (and newer bodies such as the Arctic Regional Hydrographic Commission) are playing a vital role in structuring a yet more elaborate and international legal framework that will increasingly be required, to secure establishment of a culture of safety and to protect effectively the fragile marine environment of the Arctic, as shipping intensifies in and across the waters at the top of our world. The future looks exciting.

⁷³ See <http://edit.polarconservation.org/news/pco-news-articles/canada-collaborates-with-the-arctic-ocean-coastal-states>. See also <http://www.chs-shc.gc.ca/announcements-annonces/2010/2010-10-13-eng.asp>, specifying that the Dominion Hydrographer of Canada, Dr. Savithri Narayanan, is the first chair of the newly-created ARHC, with Denmark as vice-chair.