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Between the Polar Code and Article 234: The Balance in Canada's Arctic Shipping Safety and Pollution Prevention Regulations

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ABSTRACT

In January 2017, the Polar Code entered into force and prompted the adoption, in Canada, of the Arctic Shipping Safety and Pollution Prevention Regulations (ASSPPR). The latter incorporate the Polar Code with a view to maintaining or increasing the preexisting level of protection. Consequently, a balancing act plays out in the ASSPPR, which are partly based on the Polar Code and partly on an alternative jurisdictional basis, arguably Article 234 of the United Nations Convention on the Law of the Sea. The objective of this article is to map out and put into historic perspective the balance chosen by Canada in the ASSPPR.

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Introduction

Rapid and drastic change in the Arctic's biophysical environment has prompted Canada, its circumpolar neighbors, and more recently the entire international community to take action. With receding ice cover, Arctic shipping has become more feasible and has been on the rise. Economic development and growing communities in the Canadian Arctic rely heavily on destinational shipping, which accounts for the biggest share in the traffic increase. These developments do not detract from the fact that Arctic navigation is still a hazardous undertaking, with significant risks for the vessels, their crews (and passengers), the environment, and the Arctic communities.

Canada has never intended to prevent Arctic shipping,² but its policy has always been to ensure a high level of safety and environmental protection, given that the particular hazards of Arctic navigation, the remoteness of the region, and the sensitivity of the marine environment can quickly turn small problems into a major disaster. This policy notwithstanding, Canada has committed itself repeatedly to respecting the international law of the sea and asserted more than once over the years that it had not only the legitimacy but also the right to act in the way it has.

Canada has claimed full jurisdiction, based on a historic title, over the waters within the Arctic Archipelago.³ It has asserted jurisdiction, even beyond these internal waters,

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through the 1970s Arctic Waters Pollution Prevention Act (AWPPA), which forms, with related regulations, the regime devised to protect Canada's "Arctic waters." Today, these include Canada's "internal waters [...] and the waters of the territorial sea [...] and the exclusive economic zone [...] within the area enclosed by the 60th parallel of north latitude, the 141st meridian of west longitude and the outer limit of the exclusive economic zone" or the boundary with Denmark (Greenland), where it is less than 200 nautical miles (nm) from the baselines of Canada's territorial sea. Since 1977, Canada has also operated Northern Canada Vessel Traffic Services Zone Regulations (NORDREG), a ship reporting system (SRS) and vessel traffic services (VTS), first on a voluntary basis and since 2010 as a mandatory regulation.

As extensive consultations for a new comprehensive Arctic Policy Framework come to a conclusion, 8 Canada is engaged in efforts of a much broader scope to ensure safe navigation off its Arctic coasts. Part of this effort is the ongoing work to establish so-called low-impact shipping corridors, that is, shipping corridors where negative environmental and social consequences are minimized and scarce resources to prevent, control, and mitigate detrimental impacts are optimally allocated. 9

There has also been regulatory reform of Canada's Arctic shipping regime through the adoption of the Arctic Shipping Safety and Pollution Prevention Regulations (ASSPPR).¹⁰ The reform is closely related to the international entry into force, in January 2017, of amendments to the International Convention for the Safety of Life at Sea Convention (SOLAS)¹¹ and the International Convention for the Prevention of Pollution from Ships (MARPOL Convention), 12 negotiated together as the International Code for Ships Operating in Polar Waters, or Polar Code. 13 The Polar Code is the latest, most telling indicator that issues of safety and pollution prevention with respect to polar navigation have been recognized as issues of international interest. Discussion within the International Maritime Organization (IMO) on special rules for navigation in Arctic waters began in the aftermath of the 1989 Exxon Valdez disaster, but it was not until 2002 that the IMO Guidelines for Ships Operating in Arctic Ice-covered Waters were issued. 14 Updated and expanded to encompass navigation in the Antarctic, they were reissued in 2009 as the Guidelines for Ships Operating in Polar Waters. 15 These guidelines were, however, only a stopgap on the way to the mandatory Polar Code.

Canada's response, the ASSPPR, took effect in January 2018, replacing the Arctic Shipping Pollution Prevention Regulations (ASPPR).¹⁶ One objective of the new regulations was to integrate the changes to national regulations warranted by the Polar Code, and another was to modernize Canada's Arctic shipping regime.¹⁷

This article views the ASSPPR as a balancing act involving two classical antagonistic goals pursued in the international law of the sea, set out primarily in the United Nations Convention on the Law of the Sea (LOSC), with respect to international navigation. On the one hand, a high level of international regulatory uniformity is required to reconcile the principle of freedom of navigation with environmental protection and safety interests. On the other hand, unilateral coastal state powers are required to protect the coastal states' sovereignty and legitimate interests in determining the level of protection for areas off their shorelines. This article maps the balance chosen by Canada in the ASSPPR with respect to these antagonistic goals and assesses whether the

balance achieved or sought is consistent with Canada's previous commitments and claims regarding international shipping in its Arctic waters.

The ASSPPR's Balancing Act

A key feature of the Polar Code is that its implementation rests with flag states, which have the responsibility to ensure that their registered vessels comply with the Polar Code's provisions whenever they navigate in "polar waters," as defined in the Polar Code (Figures 1(a) and 1(b)).¹⁹

Consequently, most of the ASSPPR provisions apply to Canadian vessels. Some, however, apply to foreign-flagged vessels, provided they are navigating in a so-called "shipping safety control zone" (SSCZ).²⁰ These zones divide Canada's "Arctic waters," as defined in the AWPPA,²¹ into 16 subareas in accordance with usually prevailing ice conditions (Figure 2).²²

The following overview of the ASSPPR echoes the distinction made both in the Polar Code and in the ASSPPR between safety-related provisions and provisions concerning pollution prevention. For each, the Polar Code provides for mandatory measures in Parts I-A and II-A and for additional guidance in Parts I-B and II-B. The former are of particular relevance to this article, as these binding provisions are to be implemented in domestic law.

Safety Provisions

Part I-A pertaining to the Polar Code's mandatory safety provisions became the new Chapter XIV of the SOLAS Convention.²³ The ASSPPR transpose the four regulations that compose this new chapter into domestic law. As noted in the preceding, however, they include also some additional safety provisions. In both cases, some of these regulations apply to foreign vessels as well.

SOLAS Chapter XIV Incorporated Into Canadian Law

Section 6(1) of the ASSPPR incorporates the new SOLAS Chapter XIV by reference, making the provisions part of Canadian law in their entirety.²⁴

The vessels covered by the Chapter XIV provisions, according to the ASSPPR, are cargo or other vessels of at least 500 gross tonnage or passenger vessels certified under SOLAS.²⁵ Fishing vessels, pleasure craft, and vessels without a mechanical means of propulsion do not fall under the ASSPPR's scope of application.²⁶ If the concerned vessels are Canadian, they have to comply with the Chapter XIV provisions provided they navigate in polar waters, that is, Canadian Arctic waters, other Arctic areas, or Antarctic waters. If they are foreign vessels, they are to comply with the Chapter XIV provisions, provided they navigate in one of the SSCZs of the Canadian Arctic waters.²⁷ Most of the safety provisions relate to construction, design, manning, and equipment (CDME measures).²⁸ The sole exceptions are the provisions related to voyage planning.²⁹

In addition to making SOLAS Chapter XIV applicable to Canadian and foreign vessels, the ASSPPR safety part provides for specific requirements related to vessel

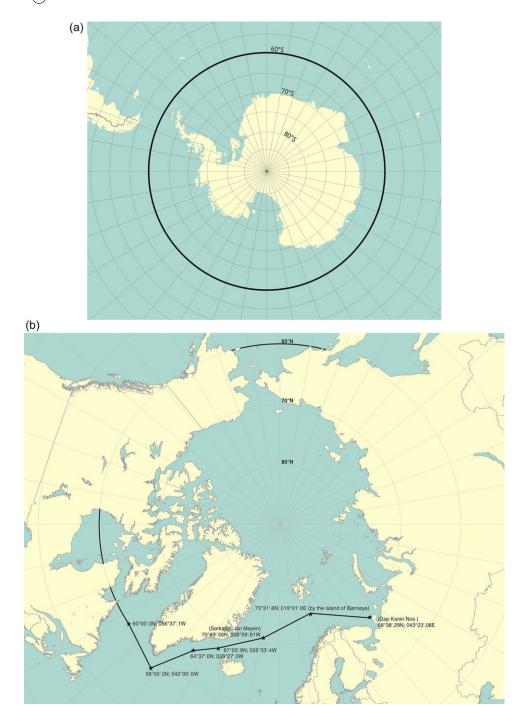


Figure 1. "Polar waters" as defined in the *Polar Code*. Panel (a) represents the Antarctic area and panel (b) represents the Arctic area.

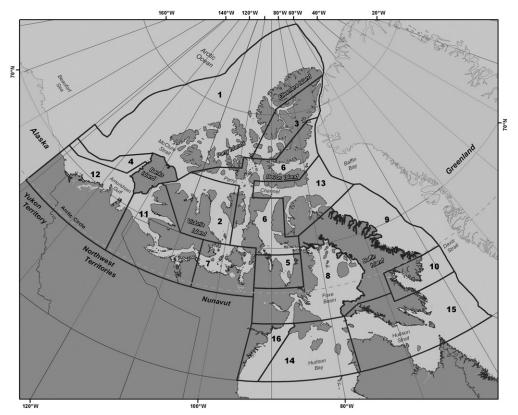


Figure 2. Shipping Safety Control Zones Order, C.R.C., c. 356, SOR/2010-131, s. 8 (schedule 2).

operation in low air temperature, which are to apply only to Canadian vessels constructed after 1 January 2017.³⁰ These requirements are intended to implement the Polar Code's so-called performance standards that are scattered across the Polar Code³¹ and according to which ship systems and equipment are to be fully operational in low air temperature. This so-called "Polar Service Temperature" is at least 10 °C below the lowest mean daily low temperature of the given area and season.³² The specific requirements include: the obligation for a vessel to have been assigned a cold temperature service or winterization notation;³³ to have on board systems and equipment capable of operating at low temperatures, including inflatable life rafts and marine evacuation systems;³⁴ and other systems necessary for propulsion and rescue operations.³⁵

Additional Canadian Safety Provisions

The ASSPPR provisions that add to the Polar Code's requirements relate to navigation periods, mandatory message transmission, and the presence on board of an ice navigator. Mostly, these requirements apply to Canadian and foreign vessels navigating in a SSCZ insofar as they are vessels of at least 300 gross tonnage, carry pollutants or dangerous goods or tow or push vessels that do, tow or push vessels that reach a combined weight of at least 500 gross tonnage, or are passenger vessels certified under SOLAS. This scope of application is designed to harmonize the ASSPPR with other components

of Canada's Arctic shipping regime, in particular, the reporting system under NORDREG.³⁸ Central to the additional requirements is the preexisting zone/date system (ZDS), a matrix applying to the 16 SSCZs and determining navigational periods.³⁹ Three aspects of the additional provisions stand out.

First, save for some exceptions, navigation is restricted according to the vessel's operational capabilities and limitations in ice conditions. Based on its "category," a vessel operating within the SSCZ is generally limited to a specific range of zones and dates. It may operate outside the period determined for a given zone if navigation is deemed safe according to a mandatory risk assessment. Canada's preexisting risk assessment method, the Arctic Ice Regime Shipping System (AIRSS), will remain available transitionally, while POLARIS, the Polar Code's method, is mandatory for Polar Class vessels and all vessels constructed after 1 January 2017.

Second, subject to a few exceptions, vessels operating outside the ZDS are under a specific communication obligation. They may enter a SSCZ only after addressing through one of the Marine Communications and Traffic Services Centers a message to the Minister of Transport providing information on the vessel, master, route, anticipated ice condition, and risk index, as well as the vessel's final destination. The message must be acknowledged before the vessel is allowed to proceed. With an identical scope of application, the reporting obligation under the ASSPPR complements NORDREG's general reporting obligation.

Finally, non-ice-strengthened vessels of at least 300, but less than 500, gross tonnage that are not passenger vessels certified under SOLAS and that navigate in an SSCZ outside the ZDS using the AIRSS are required to have aboard an ice navigator,⁴⁷ who must either have the experience specified in the ASSPPR⁴⁸ or hold a specific STCW certificate.⁴⁹ Personnel of vessels to which SOLAS Chapter XIV applies and non-SOLAS vessels of 500 gross tonnage or more operating within the SSCZ are in any case required to be qualified and certified under the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) Convention and the STCW Code.⁵⁰

A salient application criterion of the additional requirements, besides the size and type of vessel, is the vessel's location. The vessels concerned are those navigating in the Canadian SSCZ. This is significant with respect to the assessment of Canada's authority over foreign vessels.

Assessment of the Provisions Imposed by Canada in Its Capacity as Coastal State

As already mentioned, the ASSPPR provisions go beyond just incorporating the flag-state-based provisions of the Polar Code; they establish an even more comprehensive Arctic shipping regime. The Polar Code provisions present the minimum standard to be implemented by the flag states,⁵¹ and Canada has the right to impose additional obligations upon its own fleet. However, Canada is acting as a coastal state with regard to the requirements of the ASSPPR that apply to foreign vessels, raising the issue of the extent of its jurisdiction, whether these requirements are or are not Polar Code-based.

The ASSPPR apply in the SSCZs, which are located partly within the Canadian Arctic Archipelago and partly outside. Within the archipelago, the waters are, according to Canada, internal waters based on a historic title.⁵² Outside the archipelago, the waters extending from the baselines delimiting the internal waters up to 12 nm are part of

Canada's territorial sea⁵³ and, extending from the outer limit of the territorial sea up to a maximum breadth of 200 nm measured from the baselines, are part of Canada's exclusive economic zone (EEZ).⁵⁴ While Canada claims full sovereignty within its internal waters and considers itself entitled to determine unilaterally the conditions under which international navigation may take place within these waters,⁵⁵ its jurisdiction outside these waters is more limited due to the existence of navigational rights. Neither the ASSPPR nor the accompanying commentaries⁵⁶ indicate the international legal basis that supports the concerned provisions.

The provisions might be based on the coastal state's rights under the LOSC's lex generalis regimes of innocent passage in the territorial sea⁵⁷ and of freedom of navigation in the EEZ.⁵⁸ As a rule, a coastal state is not to hamper international navigation in these zones,⁵⁹ unless it does so for "the preservation of the environment" and "the prevention, reduction and control of pollution thereof."60 The question arising from this wording is whether the safety-related measures in the ASSPPR can be considered as measures to this effect. Enhanced safety arguably contributes to environmental protection, as expressly acknowledged in the Polar Code.⁶¹ However, exceptions to the navigational rights are generally interpreted restrictively.

Even employing a broad interpretation, according to which the environment-focused jurisdiction includes environment-related safety measures, only those safety provisions of the ASSPPR that are based on the Polar Code may be considered acceptable. Most safety provisions are CDME requirements, and such requirements are prohibited under both the innocent passage regime and the regime of freedom of navigation, unless they qualify as "generally accepted international rules and standards" (GAIRS).⁶² The latter are tolerated as they contribute to enhancing safety of navigation, but do so on the basis of uniform international norms. It is plausible to consider the Polar Code provisions as GAIRS.⁶³ Some might take issue with this characterization, however, arguing that the Polar Code's goal-based approach provides states with a wide discretion as to the requirements they prescribe and therefore does not ensure the level of uniformity that makes GAIRS acceptable.⁶⁴

In any case, the navigational regimes do not provide a basis for the additional non-GAIRS provisions in the ASSPPR. This leads to the question of whether the ASSPPR provisions may be based on Article 234.⁶⁵ It is indeed likely that Canada considers it has the necessary jurisdiction on this basis.⁶⁶ A complete assessment of the compatibility of the ASSPPR provisions with Article 234 is beyond the scope of this article. However, the three most vexing questions are briefly addressed.

The first is whether the geographical scope of Article 234 extends to the territorial sea. The provision's wording is unclear and might indicate that it only applies to the EEZ. Yet this narrow interpretation would lead to a paradox. If one considers the navigational regime under Article 234 to grant the coastal state more generous authority than the regime of innocent passage, which seems plausible, then the Arctic coastal state would have more extensive rights in its EEZ than in its territorial sea.⁶⁷ A more consistent interpretation—favored by Canada, as its practice suggests⁶⁸—considers Article 234 to also be applicable in the territorial sea.⁶⁹

A related question is whether Article 234 applies to international straits. This issue could arise as the United States, in particular, considers the Northwest Passage in the Canadian Arctic Archipelago to be an international strait, which warrants the regime of transit passage. Scholars from the United States contend that Canada cannot base legislative requirements on Article 234 for vessels navigating in the Northwest Passage. Canadian scholars argue that since Article 233 that deals with safeguards omits to mention Article 234, the latter also applies in an international strait.

The third question to be noted here concerns the type of measures covered by Article 234. In other words, does the jurisdiction for pollution prevention allow a coastal state to adopt and enforce only measures that take the form of discharge prohibitions, or does it also encompass environment-related safety measures? As mentioned, the Polar Code explicitly acknowledges that safety measures contribute to protecting the marine environment, 33 which lends some strength to the argument that Article 234 should be interpreted broadly so as to ensure consistency across related legal regimes. The provision's rationale also suggests a broad interpretation as Article 234 is meant to give Arctic coastal states exceptional jurisdiction to address the specific hazards of Arctic navigation with a view to protecting the particularly sensitive environment.⁷⁴ As a provision of Part XII on the protection and preservation of the marine environment, Article 234 has a prominent purpose of environmental protection. Environmental and navigational considerations have indeed equal weight, as follows from the coastal state's obligation to ensure that its "laws and regulations [...] have due regard to navigation and the protection and preservation of the marine environment."⁷⁵ Consequently, the balancing of navigational and environmental considerations tilts more toward the latter than under other navigational regimes of the LOSC, providing the coastal state with a broader range of measures. In the absence of further guidance on how to strike the balance, the difficulty consists in determining whether in the specific case of the ASSPPR the regulatory impact on navigation does exceed what is deemed acceptable under Article 234. Its comparatively stronger emphasis on protecting of the marine environment, its broad wording, and the Polar Code's acknowledgment that safety measures contribute to protect the marine environment make a compelling argument that safetyrelated requirements, including CDME, even if they are not based on the Polar Code, may be adopted under Article 234, provided they can be linked to pollution prevention.⁷⁶

Pollution Prevention Provisions

The mandatory pollution prevention provisions in the Polar Code's Part II-A were added to the different parts and annexes of the MARPOL Convention through amendment. They are incorporated into Canadian law through the second part of the ASSPPR, which also contains additional provisions. With respect to both the incorporated and the additional provisions, Canada acts in some cases not only as a flag state but also as a coastal state, which again warrants some attention.

Polar Code Pollution Prevention Provisions Incorporated Into Canadian Law

Like the ASSPPR safety provisions, the pollution prevention provisions, except if otherwise provided, apply to Canadian vessels navigating in polar waters and to foreign vessels navigating in a SSCZ of the Canadian Arctic.⁷⁸

In contrast to the safety requirements, incorporated by reference and supplemented by a number of unilaterally determined provisions, the pollution prevention requirements are directly, albeit selectively, incorporated. The selective approach is to avoid duplication, for example, as any deposit of waste from ships in Canadian Arctic waters is already prohibited pursuant to the AWPPA.⁷⁹ The core of this preexisting regime is upheld, meaning that only those provisions of the Polar Code that complement or improve the existing regime became part of the ASSPPR. The Polar Code allowances that Canada chose to incorporate take the form of exceptions to the general AWPPA prohibition. The distinctions in the Polar Code between different pollutants-oil, noxious liquid substances, sewage and garbage—posing specific risks are mirrored in the ASSPPR.

With respect to oil pollution prevention, the Polar Code's operational requirements relating to record books and emergency plans prompted some adjustments to the Canadian regime.⁸⁰ The Polar Code's structural requirements, that is, double hulling for certain vessels and minimum distance between tanks and the outer shell of the vessel, have been added to Canadian law.81

The Polar Code provisions on noxious liquid substances in bulk led to some modifications to the existing Canadian regime regarding operational requirements, such as manuals and emergency plans.⁸²

As for sewage, a two-pronged approach has been adopted in the ASSPPR to account for the difference between polar navigation occurring within and outside the Canadian Arctic waters. Canadian vessels of a gross tonnage of 400 or more or Canadian vessels certified to carry more than 15 persons are prohibited from discharging sewage in polar waters outside the Canadian Arctic, unless the deposit is made, depending on the type of treatment used, at a distance from the ice.⁸³ Within the Canadian Arctic, implementing the Polar Code led to a tightened regime for both Canadian and foreign vessels. The exception previously allowing any ship to discharge untreated sewage has been eliminated.⁸⁴ Only small vessels of 15 gross tonnage or less with not more than 15 persons aboard continue to benefit from the right to discharge sewage in Canadian Arctic waters. 85 In contrast, Canadian and foreign vessels of a gross tonnage of 400 or more or vessels certified to carry more than 15 persons are only allowed to discharge sewage in Canadian Arctic waters if the deposit meets the same conditions related to treatment and distance to the ice applying to the deposit in other polar waters. 86 This prohibition, when imposed on foreign vessels, is based on Canada's role as a coastal state.

With respect to the prevention of pollution by garbage, operational requirements related notably to the record book and management plan were included in the ASSPPR. 87 Regarding food waste discharge, the ASSPPR proceeds in the same twopronged way as for the deposit of sewage. Accordingly, Canadian vessels are prohibited from discharging food waste in polar waters outside Canadian Arctic waters, unless the discharge meets the conditions related to treatment, distance to ice, and absence of contamination with other types of garbage. 88 In Canadian Arctic waters, both Canadian and foreign vessels may discharge food waste only if they respect these the same conditions.⁸⁹ In all other cases, discharge is prohibited by virtue of the AWPPA.⁹⁰ The prohibition applying to foreign vessels is, again, based on Canada's role as a coastal state. Finally, Canadian vessels are prohibited from discharging cargo residues in polar waters other than Canadian Arctic waters, unless certain conditions are met. 91

Additional Canadian Pollution Prevention Provisions

In a number of situations, the ASSPPR pollution prevention requirements go beyond the Polar Code. This is the case with respect to waste deposit. Together, the new ASSPPR and the AWPPA maintain the previous level of protection for Arctic waters. The general AWPPA discharge prohibition is maintained by not incorporating all of the discharge allowances in the Polar Code into Canadian law. In the absence of exceptions, the "zero discharge" regime of the AWPPA continues to apply to waste deposit.

Another such situation is the Polar Code's discharge allowance for oil and oily mixtures from machinery spaces of Category A ships⁹² operating continuously in Arctic waters for more than 30 days.⁹³ The allowance is not in the ASSPPR, meaning that the AWPPA prohibition is maintained.⁹⁴

The ASSPPR provisions on noxious liquid substances in bulk are more restrictive than the Polar Code's, as they prohibit carriage of several substances identified in the International Bulk Chemical Code⁹⁵ in cargo tanks of Category A⁹⁶ and Category B⁹⁷ vessels, unless the tanks respect a minimum distance to the outer shell of the vessel.⁹⁸ By contrast, according to the Polar Code, the national administration may approve carriage even if the distance requirement is not met.⁹⁹

As mentioned in the preceding, small vessels may deposit sewage in the Canadian Arctic, ¹⁰⁰ while vessels identified in the Polar Code may deposit sewage in the Canadian Arctic only if certain conditions are met. ¹⁰¹ The vessels in between these two categories, that is, medium-sized vessels of more than 15 but less than 400 gross tonnage and not certified to carry more than 15 persons, are specifically addressed in the ASSPPR. All of them, whether Canadian or foreign, are permitted to deposit sewage in Canadian Arctic waters only if conditions related to considerations of treatment, speed, and distance to the ice are met. ¹⁰²

As for cargo residues, while Canadian vessels may discharge them in polar waters outside the Canadian Arctic waters only under certain conditions, ¹⁰³ the ASSPPR does not address the situation of Canadian and foreign vessels navigating in Canadian Arctic waters, and hence the general AWPPA prohibition applies. ¹⁰⁴

With respect to both Canadian and foreign vessels, Canada is acting outside the realm of the Polar Code, raising the question of the jurisdictional basis for these additional prohibitions.

Assessment of the Provisions Imposed by Canada in Its Capacity as Coastal State

As with the safety provisions, the fact that the ASSPPR pollution prevention part incorporates Polar Code requirements for Canadian and foreign vessels and provides for additional obligations attests to the prominent place that the ASSPPR have in Canada's new Arctic shipping regime. Both the Polar Code-based and the additional provisions applying to Canadian vessels are firmly grounded in Canada's flag-state jurisdiction. The requirements imposed on foreign vessels navigating in a SSCZ, by contrast, rest on Canada's jurisdictional capacity as coastal state. This warrants some comment regarding those SSCZs that lie in the territorial sea or the EEZ where navigational rights are to be respected.

Regarding discharge requirements, the regime of innocent passage grants the coastal state extensive powers, ¹⁰⁶ as long as the requirements do not include unilaterally

determined CDME measures. 107 While certain structural requirements, that is, CDME measures, form part of the provisions on oil pollution prevention set out in the ASSPPR, 108 they are based on the Polar Code, as are the discharge requirements and related operational measures. Therefore, they constitute GAIRS that the coastal states have the right to prescribe. 109 In the EEZ, the coastal state has jurisdiction related to environmental protection, 110 provided the requirements are compatible with the freedom of navigation.¹¹¹ Again, the ASSPPR restrictions on discharge and related measures based on the Polar Code are GAIRS that may be implemented by a coastal state. 112

Accordingly, the question of whether the concerned provisions may be based on LOSC Article 234 does not arise. Article 234 grants exceptional jurisdiction for the unilateral adoption and enforcement of laws and regulations, such as the AWPPA, that otherwise have no basis in the international law of the sea but are deemed appropriate, given the unique hazards faced by Arctic navigation and the exceptional sensitivity of the Arctic environment. This exceptional jurisdiction is not needed for GAIRS.

The situation is different with respect to the ASSPPR provisions that are not based on the Polar Code and thus not GAIRS. Canada may impose them on its own vessels, according to the flag-state principle, 113 and on foreign vessels navigating in its internal waters, according to its unfettered jurisdiction as coastal state. 114 The situation is more uncertain in the territorial sea and the EEZ. According to the innocent passage regime, the coastal state may adopt regulations in respect of pollution prevention, 115 unless they are non-GAIRS CDME measures. This exception poses problems for the structural requirements for the carriage of noxious liquid substances. 116 Since the additional environmental ASSPPR provisions are not GAIRS, their compatibility with the EEZ regime is also not straightforward. 117

The most plausible jurisdictional basis for these requirements is Article 234. Unlike the safety-related provisions, the provisions of the second part of the ASSPPR are directed at environmental protection. However, while Article 234 supports coastal state jurisdiction for discharge requirements, it is less clear whether it covers related CDME measures. Again, however, it may be argued that the comparatively greater attention to environmental protection and the broad wording of Article 234 provide sufficient room for environmental CDME measures, as long as they do not prevent international navigation. 118 The argument is further supported by the fact that Article 234 was negotiated with the AWPPA in mind, including its CDME-related standards, so that it was intended to extend to these kinds of provisions. 119

Assessment of the ASSPPR Against Canada's Previous Claims and Commitments

With regard to international navigation in its Arctic waters, Canada looks back on a history of pioneer lawmaking. The AWPPA is one of the most prominent Canadian initiatives in this respect, not least because it became the "catalyst" for the negotiation of Article 234. Canada's policy and legal decisions have always intersected with the international legal framework and inevitably so, as Arctic navigation is part of an intrinsically international activity. Significant feedback loops link domestic legal and regulatory decisions and international law. Canada's strategies have been driven by national interests that, though not necessarily shared by the international community, were underpinned by a widely acknowledged legitimacy. This helped Canada influence international legal developments to its advantage as Canada repeatedly pushed the boundaries of the international law of the sea.

An overview of Canada's claims and commitments in respect of its marine Arctic is provided in the following, followed by an assessment of how the ASSPPR fit into the earlier strategies regarding international navigation in Canada's Arctic waters. The purpose is to anticipate, based on past experience, the potential pushback against the more contentious aspects of the ASSPPR.

An Overview of Canada's Claims and Commitments

Canada has always pursued a two-pronged approach with respect to the protection of the Arctic marine environment against hazards caused by vessel traffic. On the one hand, it has not shied away from acting in an independent, sovereign manner. On the other hand, it has also actively and unfalteringly encouraged collective action, both on the regional and on the international level, to preserve the Arctic marine environment of Canada and beyond.

Canada's Attachment to Unilateral Action

Canada's claim that the marine areas within the Arctic Archipelago are internal waters based on historic title was made explicit for the first time in 1973. This claim has come to epitomize the Canadian legal and political position on the Arctic as well as its self-perception as an Arctic state, so much so that it has in many ways become inseparable from the ensuing political strategies, policy choices, and legislative and regulatory decisions.

However, when it comes to international navigation, limiting the geographical scope of domestic measures to internal waters is not satisfactory from an environmental perspective. Although risks may vary to some extent due to the different environmental and geographical contexts, navigation outside the Archipelago is not less dangerous. Any incident in the EEZ, for example, still has the potential to threaten the ship, its crew and cargo, Canada's marine and coastal environment, and other Canadian interests. This, as well as the realization that the lack of interest in the Arctic might have detrimental effects beyond environmental concerns, became clear to Canadian politicians and the broader public in the context of the SS Manhattan's attempts to sail through the Northwest Passage, in 1969 and 1970. Canada's immediate reaction in 1970 was to adopt the AWPPA with the aim to protect its "Arctic waters," the geographical scope of which logically extended beyond the Archipelago, to enclose parts of the Beaufort Sea as well as a strip of water around the Archipelago up to a maximum 100 nm seaward "from the nearest Canadian land," where possible. 122 Its widely recognized legitimacy notwithstanding, the decision was a bold act, as it implied an assertion of sovereign authority that had no firm foundation in international law. 123 At the same time, it was a focused and therefore cautious act, applying a "functional approach" meant to assert only what was strictly necessary to achieve a specific purpose. 124 It

finally turned out to be also a far-reaching act that paved the way for the emergence of a new concept in the law of the sea: the "national pollution zones." The timing was indeed ideal, as 1970 was also the year the international community agreed on launching UNCLOS III to negotiate a new treaty on the law of the sea. 126

During these negotiations, Canada took advantage of growing international awareness for the need of environmental protection to safeguard its own interests. It was instrumental in the negotiations that eventually yielded the general regime of Article 211(6) and the "Arctic exception" of Article 234. Even before the entry into force of the LOSC in 1994 and well before its becoming binding upon Canada in 2003, there has been general understanding that Article 234 provided a valid basis to Canada's AWPPA. 128

In some ways, the 1970 AWPPA set the tone for the policy that Canada has consistently pursued ever since. Although international navigation was always welcomed in Canadian Arctic waters, Canada was also firmly committed to making it as safe as possible for the ships, their crews, the environment, and the Arctic coastal communities. 129 In the subsequent years, the use of the Canadian Arctic waterways by international navigation did not increase as anticipated at the time of the SS Manhattan's passage, partly because resource exploitation did not expand as expected. The ensuing political calm was again disturbed in 1985 by the passage through the Canadian Arctic of the U.S. Coast Guard icebreaker Polar Sea. The discussion on the legal status of the Northwest Passage resumed, but Canada and the United States were able to find a way to have the Polar Sea cross the Canadian Arctic without either side giving up its position. 130 This rationale of "agreeing to disagree" underpinned the 1988 Agreement on Arctic Cooperation concluded to enable smooth passage of government icebreakers through Canadian and U.S. Arctic waters.¹³¹ The fallout of the *Polar Sea* passage was more difficult to manage with respect to the Canadian public. Canada, therefore, decided to establish straight baselines around the Arctic Archipelago, as a message to the world but also to the Canadian public. 132 According to Joe Clark, then Minister for Foreign Affairs, they were to "define the outer limits of Canada's historical internal waters." 133 Although this did not end the discussion on the status of the Northwest Passage, a relative calm returned.

When the physical changes in the Arctic became widely visible in the 2000s, the discussion regained momentum, fueled this time mostly by domestic political issues. The development of the Arctic region became a realistic possibility, an increase of Arctic navigation a likely prospect, and Arctic sovereignty a politically charged issue. The matter of sovereign authority over the Arctic in general and Arctic navigation in particular reappeared on the political agenda and was echoed in Canada's Northern Strategy issued in 2009.¹³⁴ As part of the ensuing policy decisions and legal adjustments, Canada made some significant changes to its Arctic navigation regime. 135 With effect from August 2009, the AWPPA was expanded to include the entire Canadian Arctic EEZ, where possible up to 200 nm from the baselines. 136 With effect from July 2010, the NORDREG system was made mandatory. 137 As international resistance to this latter decision was subdued, 138 perhaps because the rationale behind the decision was accepted, ¹³⁹ Canada had once more successfully pushed the frontiers of unilateral coastal state action.

Canada's contribution to the creation of coastal state jurisdiction for Arctic pollution control zones and the use it has made of the jurisdiction over the years confirm its attachment to independent decision making and standard setting. Almost paradoxically, they also convey Canada's commitment to multilateralism.

Canada's Commitment to Multilateralism

Canada's markedly multilateral approach to the Arctic has manifested itself in various ways over the years and it has, of course, not been limited to shipping issues. The establishment of the Arctic Council, for instance, is greatly owed to Canada's dedication to an inclusive and collaborative yet low-key form of regional governance. 140 This highlevel forum has commissioned numerous studies with the aim of advancing scientific knowledge of the region and enabling science-based policymaking among its members. The 2009 Arctic Marine Shipping Assessment (AMSA) Report, ¹⁴¹ for instance, has played a substantial role in the development of the specific norms on Arctic navigation, including the Polar Code. 142 More than 20 years after the establishment of the Arctic Council, Canada continues to rally states to pursue common objectives, and the 2013-2015 chairmanship provided a particular opportunity to do so. Under Canada's impetus and in accordance with the then prevailing domestic approach to the Arctic, a strong emphasis was put on economic development, with the establishment of the Arctic Economic Council as the most concrete achievement. 143 While this is seen as a clear, and for some questionable, 144 departure from the long-held tradition of the Arctic Council to focus on "sustainable development and environmental protection," 145 environmental issues were still on the agenda, including with respect to navigation. ¹⁴⁶ The first exercise under the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic¹⁴⁷ was organized and hosted by Canada, ¹⁴⁸ and guidelines on best practices for Arctic seaborne tourism were issued while Canada was chair. 149

Canada has also taken a number of multilateral initiatives outside the Arctic Council. Discussion between the five Arctic coastal states is routine, as recalled in the 2008 Ilulissat Declaration, and takes place in various constellations and fora. Cooperation also covers a great variety of areas, such as military and defense issues, scientific expeditions and exchanges, including with respect to gathering data on the extended continental shelf, and Arctic commercial fisheries.

With respect to navigation more specifically, the most important forum is the IMO, the competent international organization in charge of standard setting with respect to safety and security of shipping and prevention of vessel-source pollution. Not only is shipping an inherently global business that thrives best on an international level playing field; shipping also rests on the fundamental principle of freedom of navigation, 154 according to which constraints on navigation are generally to be imposed by the flag state. Although the principle of flag-state jurisdiction has been diluted and complemented in recent decades by the development of coastal state and port state jurisdiction, it is still a dominant feature in the international law of the sea and shipping law and, as such, pivotal in any effort to increase the general level of protection of the marine environment against vessel-source pollution. The importance of the IMO, as the forum for standard setting respecting international navigation, cannot be overestimated. Canada's active role within the IMO is also motivated by the objective to make sure

that multilateral commitments do not compromise freedom for unilateral action where such is deemed vital for Canadian interests.

Canada's contribution to the negotiations of the Polar Code in particular was substantial. 155 Stakes were high and, as a coastal state with directly concerned marine zones, Canada had naturally set its sights on negotiating an instrument that would provide for a high level of protection. As a coastal state with its own stringent regime in place, Canada also sought to make use of its expertise and experience to achieve an agreement that matched or exceeded its domestic regime as much as possible. Such an approach would minimize the adverse impact on Canadian law should the Polar Code's multilateral regime be deemed to prevail over unilateral coastal state measures. Canada was also intent on including a conflict clause in the Polar Code to make it clear that coastal state jurisdiction as set out in UNCLOS was not eroded by the new instrument and that circumpolar states could maintain previously adopted and adopt new measures under Article 234. 156 This was not met with much sympathy from some in the international community, 157 although the Russian Federation seemed to pursue a similar objective. 158

The main focus for such a clause was not on the Polar Code per se but on the new chapter and provisions that would be added by the Polar Code to the MARPOL and SOLAS Conventions. Regarding the requirements on pollution prevention, the MARPOL Convention contains the following general clause:

Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to Resolution 2750C (XXV) of the General Assembly of the United Nations nor the present or future claims and legal vies of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction. 159

Upon accession to the MARPOL Convention in 1992, Canada clearly marked its understanding of the relationship between MARPOL and LOSC Article 234, declaring, based explicitly on Article 234, that "its accession [...] is without prejudice to such Canadian laws and regulations as are now or may in the future be established in respect of arctic waters within or adjacent to Canada." 160 With respect to the safety-related requirements, a clause was included in the new SOLAS Chapter XIV according to which "nothing in this chapter shall prejudice the rights or obligations of States under international law." ¹⁶¹ Both clauses are support for the argument that Article 234 may serve as an alternative jurisdictional basis. 162 Canada seems indeed satisfied that its interests are safeguarded. 163

What emerges from this overview is that Canada's engagement in multilateral initiatives and activities has been significant over the years. Canada sees the Arctic as it is, that is, an area that forms a significant part of Canada but that is also embedded in a region and as such connected to the rest of the world. In other words, it is an area where intersecting national and international interests permeate the various jurisdictional layers and call for a combination of unilateral and multilateral action. The relationship between the multilateral Polar Code and unilateral Canadian regulation illustrates well the complexities of good lawmaking for the Arctic. The challenge for Canada in particular has not only been to find the right balance, but also to remain consistent over time to ensure the effectiveness of its policy choices.

Canada's ASSPPR: Consistency With Past Approaches?

Canada appears to be the first state to have taken explicit action to adjust its national laws to take into account the Polar Code. Its decision to make regulatory changes to its domestic law was motivated in part by the need to revise the existing regime. But it also shows Canada's embracing of the international standards. Canada's interpretation of the relationship between the Polar Code and unilateral jurisdiction under Article 234 has not attracted much attention, although it would not be surprising to see the views of states diverge. Based on past discussions, possible arguments, as well as the strategies they serve, are next put into perspective to asses whether Canada's decision to combine international and domestic choices in its current regime on Arctic shipping has a reasonable chance of securing acquiescence, should a debate arise. The same objective is then pursued by looking more closely at the types of measures Canada may impose unilaterally and their consistency with measures set forth in the past.

The Relationship Between the Polar Code and Article 234—Canada's View in Perspective

Despite the fact that the clause according to which "nothing in this chapter shall prejudice the rights or obligations of States under international law" was included in the SOLAS Chapter XIV¹⁶⁵ and seems, together with the general conflict clause of MARPOL, to solve the issue of the relationship between the Polar Code and Article 234, there is room for interpretation. The conflict clauses make moot arguments that are based on general conflict of treaty rules, namely, the *lex anterior* and *lex specialis* rules, or on the conflict rules provided in the LOSC—that is, Article 311(2) and Article 237—governing relationships between treaties. However, given the indeterminacy of the wording of the conflict clauses, the conclusion that coastal state jurisdiction under Article 234 is preserved might not be automatic.

The view that the entry into force of the Polar Code alters the coastal states' powers can be made in two different ways, both relying on the teleological argument that the main rationale of an international instrument on polar navigation is to create a uniform legal environment, which does not tolerate deviating coastal state standard setting.¹⁶⁷ The position could be taken that once the international community has decided to act multilaterally to make polar navigation safer, all unilateral coastal state action to this effect must cease, even if it targets issues that are not addressed multilaterally. The argument to buttress this position would be based on the fact that under the "due-regard" wording in Article 234, the coastal state has to balance environmental and navigational interests. As long as no specific international regulation exists, it is up to the coastal state to establish the balance. Once the international community has negotiated a uniform set of regulations, however, the coastal state's discretion vanishes. "The rights and obligations of States under international law" referred to in the SOLAS conflict clause and the "nature and extent of coastal [...] State jurisdiction" referred to in the MARPOL conflict clause, which both extend to Article 234, would change in accordance with the evolving international law. The balancing under the "due regard" clause would require the coastal state to accept the will of the international community, not only as directly expressed in the rules and standards established, but also as indirectly expressed in the decision to not regulate certain matters.

A second, less radical, position would be the contention that unilateral and multilateral actions are meant to play complementary roles. As long as a specific issue is not addressed by the international community, the coastal state retains its power to act unilaterally, but it has to defer to multilateral standards once they are established and to the extent that they regulate the issue. The rationale behind this argument would be that multilateral action is preferable regarding the shipping industry that relies on uniform requirements, but that unilateral action for the sake of the environment is acceptable, as long as no multilateral agreement exists on a specific issue. "Due regard for navigation" would therefore mean accepting the will of the international community to the extent it is expressed in the rules and standards established. According to both the radical and the less radical position, the precedence of the Polar Code over Article 234 jurisdiction is not based on the Polar Code (the specific wording in the SOLAS and MARPOL Conventions) per se, but on the specific systemic meaning attributed to Article 234.

While both arguments set out in the preceding can be made relying on the general spirit of the LOSC, they do not account for the strong environmental intention of Article 234, have no direct support in the text, and ignore the role Article 234 plays in Part XII. As already mentioned, compared to the general navigational regimes of the LOSC, the balance between navigational and environmental interests under Article 234 tilts toward the latter. ¹⁶⁸ Furthermore, nothing in Article 234 hints at a jurisdiction that is conditional or dependent on the nonexistence of multilateral initiatives. While general minimum standards agreed upon under the auspices of the IMO and intended for flag states limit coastal state action in the context of the general rules of sections 5 and 6 of LOSC Part XII, 169 this is not the case under section 8, solely formed by Article 234. 170

The inclusion of the conflict clause in the SOLAS Chapter XIV further weakens arguments that multilateral (IMO) action and unilateral coastal state action on Arctic navigation cannot coexist. The clause was included upon the insistence of Canada, intent on ensuring that coastal state jurisdiction under Article 234 would not be eroded or compromised by the entry into force of the Polar Code provisions. It was Canada's explicit understanding that a conflict clause "would further enhance legal clarity and coherence between [sic] the relationship between States' rights and obligations under the Polar Code and international law as applicable in polar waters." 171 Given these circumstances, it appears that, in Canada's view, the possibility for unilateral coastal state provisions and multilateral Polar Code provisions to coexist is acknowledged. Good faith on the part of the other negotiating partners, including the United States, aware of Canada's position, commands that Canada's interpretation of the meaning and effect of the clause be recognized.¹⁷² In other words, while the Polar Code provisions inform the "due regard" clause and are the "new baseline" for polar navigation, the Polar Code cannot be interpreted as an impediment to the adoption of unilateral provisions that cover different issues or establish more stringent obligations. Provided these unilateral provisions impose obligations that achieve a reasonable, evidence-based balance between the interests of international navigation and of pollution prevention and do not compromise international navigation altogether, Arctic coastal states may adopt legislation supported by Article 234.

The ASSPPR provisions convey Canada's view that Article 234 provides jurisdiction to determine the level of protection applied in the marine areas off its coasts unilaterally and that this was not forfeited by the international community addressing issues of polar navigation. The ASSPPR also translate in a detailed and concrete way Canada's interpretation of the scope of jurisdiction available to coastal states under Article 234. The ASSPPR provisions all relate to issues addressed in the Polar Code, but in some cases Canada has chosen to prescribe a slightly different or more stringent set of rules, including as regards CDME rules. While Canada recognizes the advantages of multilateral action, it obviously considers that when it comes down to it, unilateral coastal state jurisdiction trumps multilaterally agreed upon uniformity.

This position is in line with Canada's previous policy of seeking multilateral solutions while going ahead with unilateral measures if the multilateral path leads nowhere or does not produce a satisfactory result.

Continuity in the Types of Measures Set Forth Unilaterally

As indicated in the preceding, several of the ASSPPR provisions, both the pollution prevention focused and the safety focused, in some respects go beyond what is in the Polar Code. Canada's first legislative initiative restrictions respecting international navigation in Arctic waters took the form of a general discharge prohibition. This "zero discharge" approach in section 4 of the AWPPA¹⁷⁵ has been the core component of Canada's AWPPA since 1970. Given this domestic standard-setting history, as well as Canada's efforts to secure an international basis for coastal State action, it is not surprising that Canada decided not to subordinate its long-standing domestic regime regarding vesselsource pollution to an international compromise. Instead, Canada asserted that it has the required jurisdiction to maintain and selectively adjust the preexisting general discharge prohibition and its various exceptions.

Although the preexisting Canadian regime is centered on discharge prohibitions, the CDME and operational measures in the ASSPPR are also not a new feature in Canadian law. The Arctic navigation regime established under the AWPPA included a number of CDME and operational obligations¹⁷⁶ that were applicable to foreign vessels. Thus, it is no surprise that Canada included these types of measures in the new ASSPPR, in some respects beyond what is indicated in the Polar Code.

As for the additional safety measures, the picture is somewhat different. Canada followed a functional approach when it first adopted the AWPPA. Although it was understood that Article 234 would cover discharge measures such as those provided for by the Canadian AWPPA, its scope beyond these kinds of measures has always been less clear. The issue became relevant in 2010 when Canada made NORDREG mandatory in order to ensure a high standard of safety of Arctic navigation.¹⁷⁷ Since then, vessels have had to report to Canadian authorities when they intended to travel through Canadian Arctic waters. They have had to communicate their identity, features, cargo on board, itinerary, and so on, 178 with the risk, in an extreme case of noncompliance with Canadian requirements, of being denied the right to enter and travel through Canadian Arctic waters. 179

The decision to make NORDREG binding faced some backlash. In a letter sent to Transport Canada before NORDREG became mandatory, the United States referred to the new regulations as a "sweeping infringement of freedom of navigation within the exclusive economic zone and the right of innocent passage within the territorial sea" and as incompatible with the "due regard" obligation of Article 234. After the entry into force of the binding NORDREG on 1 July 2010, the United States repeated these concerns. 181

Canada's authority to establish the ship-reporting system (SRS) and vessel traffic system (VTS) unilaterally was also questioned in several IMO committees, 182 within the Sub-Committee on Safety of Navigation by the United States and BIMCO, ¹⁸³ and within the Maritime Safety Committee by the United States and INTERTANKO, 184 Germany, 185 and Singapore. 186 Canada responded to the criticism by invoking, for the first time, 187 its unilateral right to enact such legislation under Article 234. 188 While Canada's argument might not have convinced all critics, 189 the issue appears to be handled according to the "agree to disagree" strategy. 190

The extent to which a coastal state may rely upon Article 234 to impose on foreign vessels obligations that are not directly related to pollution prevention still raises questions. In practice, however, NORDREG seems to be complied with by the vessels crossing into or through Canadian Arctic waters. This fact and the fact that the discussion did not become a matter of broader diplomatic or political exchanges make it plausible to argue that Canada successfully asserted its broad interpretation of Article 234.

Canada has not swayed from its preceding course of action. Both the additional measures related to discharge and the additional safety-related requirements in the ASSPPR are not without precedent, as CDME and operational measures were already part of the ASPPR. 191

Conclusion

Canada has developed its regime of Arctic navigation in a coherent way consistent with its overall approach to the issue of sovereignty and sovereign powers in the Arctic. Canada's actions have signaled its strong support for international law as well as for regional and international cooperation, but they have also conveyed its commitment to protecting the Arctic environment against vessel-source pollution. At times, this has led Canada to push the boundaries of international law either by pressing for significant legal developments in the form of Article 234 or by asserting a broad interpretation of Article 234 as such and its relationship with the Polar Code. While these actions drew some resistance, in practice this has not prevented Canada from effectively applying its rules and standards in its Arctic waters.

Both the pollution prevention requirements and the safety requirements of Canada's preexisting regime on Arctic navigation were, if not accepted, at least tolerated. Canada has reason to believe that the additional requirements in the ASSPPR, whether they are safety related or pollution related, non-CDME, CDME, or operational measures, will also be observed.

In the future, this may well lead to a déjà vu situation in the phase II negotiations of the Polar Code. 192 Canada will once again bring its expertise and experience to the negotiation table to make sure that its domestic regime will be backed by international consent and mirrored in the new international rules and standards. For example, the omission of stringent ice navigator requirements in the Polar Code, as suggested by Russia and Canada, ¹⁹³ has already been highlighted as a noticeable and problematic *lacuna*. ¹⁹⁴ Canada has gone ahead with its own (rather modest) ice navigator requirements for some vessels in Canadian Arctic waters ¹⁹⁵ and might even decide to develop a compulsory pilotage scheme ¹⁹⁶ and then seek international consensus. The same could be true for the potential expansion of the current rules to non-SOLAS vessels, as Canada has to some extent included such vessels in its safety requirements. ¹⁹⁷

There is broad agreement that the Polar Code requirements are but a first step toward an all-encompassing international regime for polar navigation. A significant number of issues were not addressed. This "unfinished business" includes noise, heavy fuel oil (HFO), and invasive species, but even sewage and gray water can be expected to be reconsidered. The Polar Code does not address issues such as habitat protection and marine protected areas. As navigation in the Canadian Arctic increases, scientific evidence of the environmental footprint of navigation becomes more and more conclusive, and technological possibilities evolve, Canada might again feel the need to be a pioneer in some of these areas on the hopes of negotiating a firm international legal basis.

Notes

- 1. See Frédéric Lasserre, "Arctic Shipping: A Contrasted Expansion of a Largely Destinational Market," in Matthias Finger and Lassi Heininen (eds.), *The Global Arctic Handbook* (Singapore: Springer Nature, 2018), 83–100. Transit shipping in the Canadian Arctic does not play the major role predicted several years ago, high-profile transits such as the *Crystal Serenity* crossings in summer 2016 and 2017 notwithstanding.
- 2. As far back as 1969, Canada made it clear that it would welcome foreign vessels in Arctic waters. Prime Minister P. E. Trudeau declared in the House of Commons 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." Prime Minister's statement in the Throne Speech, Canada, Parliament, House of Commons Debates, 28th Parliament, 2nd Session, Vol. 1 (24 October 1969), at 39.
- 3. Department of External Affairs, Letter, 17 December 1973, Canadian Yearbook of International Law 12 (1974): 277, at 279 [hereafter Letter].
- 4. Arctic Waters Pollution Prevention Act, St Can 1969-1970, c. 47, section 3.
- 5. Arctic Waters Pollution Prevention Act, R.S.C., 1985, c. A-12, as amended, section 2 [hereafter AWPPA].
- Department of Transport, Vessel Traffic Reporting Arctic Canada Traffic Zone (NORDREG), available at web.archive.org/web/20070206015755; www.ccg-gcc.gc.ca:80/cenarc/mcts-sctm/mcts-services/vtrarctic_e.htm (archived content, as of 6 February 2007), accessed 29 June 2018.
- 7. Northern Canada Vessel Traffic Services Zone Regulations, SOR/2010-127 [hereafter NORDREG].
- 8. For an overview, see Indigenous and Northern Affairs Canada, *Toward a New Arctic Policy Framework*, available at www.eia.gov.nt.ca/en/arctic-policy-framework, accessed 29 August 2018.
- 9. See Canada, "Government of Canada Introduces New Measures to Protect the Marine Environment and Coastal Communities in Canada's Arctic," press release, 27



- August 2017, available at www.canada.ca/en/transport-canada/news/2017/08/government_ of_canadaintroducesnewmeasurestoprotectthemarineenvir.html (accessed 15 August 2018).
- Shipping Safety and Pollution Prevention Regulations, C.R.C., c. 354 [hereafter ASSPPR].
- International Convention for the Safety of Life at Sea Convention, 1184 U.N.T.S. 278 (SOLAS).
- 12. International Convention for the Prevention of Pollution from Ships, (1973), 2 I.L.M. 1319 (MARPOL).
- 13. Amendments to the International Convention for the Safety of Life at Sea, 1974, Resolution MSC.386(94), 21 November 2014, in Report of the Maritime Safety Committee on its Ninety-Fourth Session, Annex 7, IMO Doc MSC 94/21/Add.1, and Amendments to the Annex of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, Resolution MEPC.265(68), 15 May 2015, in Report of the Marine Environment Protection Committee on its Sixty-eighth Session, Annex 11, IMO Doc MEPC 68/21/Add.1 [hereafter Polar Code]. For Canada, the amendments to SOLAS entered into force on 1 January 2018 and those to MARPOL on 8 February 2018. See IMO, Status of Treaties, available at www.imo.org/en/About/Conventions/ StatusOfConventions/Pages/Default.aspx, under SOLAS (139) and MARPOL (71).
- Guidelines for Ships Operating in Arctic Ice-covered Waters, 23 December 2002, IMO Doc. MSC/Circ.1056—MEPC/Circ. 399 (2002).
- Guidelines for Ships Operating in Polar Waters, 18 January 2010, Resolution A.1024 (26), IMO Doc. A 26/Res.1024 (2010), Annex.
- 16. Arctic Shipping Pollution Prevention Regulations, C.R.C., 353 [hereafter ASPPR].
- 17. Regulatory Impact Analysis (Objectives), Canada Gazette, 2017, part I, Vol. 151, No. 26, 2867, at 2869.
- 18. United Nations Convention on the Law of the Sea, 10 December 1982, 1833 U.N.T.S. 396 [hereafter LOSC].
- 19. See *Polar Code*, supra note 13, at chapter 5.
- 20. ASSPPR, supra note 16, at sections 6(1) and 7(1) (for the safety-related measures) and section 13 (for the pollution prevention measures).
- 21. AWPPA, supra note 5, section 2.
- See Shipping Safety Control Zones Order, C.R.C., c. 356.
- 23. See SOLAS Convention, supra note 11, and Amendments to SOLAS as part of the Polar Code, supra note 13.
- 24. ASSPPR, supra note 10, at section 6(1).
- 25. *Ibid.*, at section 6(1)(a)-(c).
- 26. *Ibid.*, at section 6(2).
- 27. Ibid.
- The provisions deal with the requirement to carry on board a Polar Water Operational Manual (PWOM) and a certain other features (Polar Code, supra note 13, chapter 2), the approbation with regard to materials of exposed structures in ships (ibid., chapter 3), obligations relating to stability of the ship despite ice accretion or damage cause by ice impact (ibid., chapter 4), ensuring watertight and weather-tight integrity (ibid., chapter 5), the enduring functionality of machinery installations (ibid., chapter 6), fire safety and fire escape (ibid., chapter 7), escape, evacuation and survival means (ibid., chapter 8), nautical information, navigational equipment functionality and additional navigational equipment (ibid., chapter 9), ship communication means and survival craft and rescue boat communications capabilities (ibid., chapter 10), and manning and training (ibid., chapter 12).
- 29. Ibid., at chapter 11.
- 30. ASSPPR, supra note 10, at section 11.
- Polar Code, supra note 13, at chapters 1.5, 3.2, 5.3, 6.2.1.2, 6.3.2, 7.2.2, 7.3.3, 8.3.1, 10.2.2,
- See in particular *Polar Code*, supra note 13, at chapters 1.2.11 and 1.4. 32.

- 33. ASSPPR, supra note 10, at section 11(a).
- 34. Ibid., at section 11(b).
- 35. *Ibid.*, at section 11(c).
- 36. Ibid., at sections 8-10.
- 37. *Ibid.*, at section 7. The French wording of the provision, clearer than the English wording, allows the conclusion that Canadian vessels are only covered as they navigate in an SSCZ, that is, in Canadian Arctic waters, and not generally when navigating in polar waters.
- 38. NORDREG, supra note 7, at section 2.
- 39. ASSPPR, supra note 10, at schedule 1.
- 40. *Ibid.*, at section 8(1).
- 41. For details, see *ibid.*, at schedule 1.
- 42. *Ibid.*, at section 8(2).
- 43. For details, see Transport Canada, Arctic Ice Regime Shipping System (AIRSS) Standard, available at www.tc.gc.ca/eng/marinesafety/tp-tp12259-menu-605.htm, accessed 19 July 2018.
- 44. Ibid.
- 45. *Ibid.*, at section 9(1)(a).
- 46. *Ibid.*, at section 9(1)(b).
- 47. *Ibid.*, at section 10 (in conjunction with section 7).
- 48. *Ibid.*, at section 10(2)(a)(i).
- 49. *Ibid.*, at section 10(2)(a)(ii).
- 50. Polar Code, supra note 13, at chapter 12. See also International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 7 July 1978, 1361 U.N.T.S. 2, as amended (STCW Convention), article VI.
- 51. LOSC, supra note 18, at articles 92 and 94.
- 52. Letter, supra note 3.
- 53. Oceans Act, S.C. 1996, c. 31, section 4.
- 54. *Ibid.*, at section 13.
- 55. Letter, supra note 3.
- 56. "Regulatory Impact Analysis (Objectives)," supra note 17.
- 57. LOSC, supra note 18, at articles 17ff. and 211.
- 58. Ibid., at articles 56, 58, 87, and 211.
- 59. Ibid., at article 24(1), as well as articles 58(2), 87, and 94 a contrario.
- 60. *Ibid.*, at articles 21(1)(b)(iii) and 211(4) and (5). The latter two only mention the second part of the cited wording.
- 61. See Polar Code, supra note 13, at Preamble, paragraph 5.
- 62. For the innocent passage regime, see LOSC, supra note 18, at articles 21(2) and 211(4). Regarding the regime of freedom of navigation, see articles 56(2) and 58(2), and articles 56(1)(b)(iii) and 211(5), which provide that the coastal state may impose obligations that conform to and give effect to GAIRS.
- 63. See Østein Jensen, "The International Code for Ships Operating in Polar Waters: Finalization, Adoption and Law of the Sea Implications," *Arctic Review on Law and Politics* 7 (2016): 60, at 76.
- 64. See Tore Henriksen, "Protecting Polar Environments: Coherency in Regulating Arctic Shipping," in Rosemary Rayfuse (ed.), *Research Handbook on International Marine Environmental Law* (Cheltenham: Edward Elgar Publishing, 2015), 363–384, at 377ff.
- 65. LOSC, supra note 18, at article 234:
 - Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine



- environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.
- Canada did not address the issue respecting the ASSPPR, but had based NORDREG on Article 234, applying a rather broad interpretation of Article 234. This is discussed in the following.
- See Kristin Bartenstein, "The 'Arctic Exception' in the Law of the Sea Convention: A Contribution to Safer Navigation in the Northwest Passage?," Ocean Development and International Law 42 (2011): 22, at 28ff.
- 68. See Aldo Chircop, "Jurisdiction Over Ice-Covered Areas and the Polar Code: An Emerging Symbiotic Relationship?," Journal of International Maritime Law 22 (2016): 275, 280.
- 69. To this effect, see also Donat Pharand, "The Arctic Waters and the Northwest Passage: A Final Revisit," Ocean Development and International Law 38 (2007): 3, at 47. See also Ole Kristian Fauchald, "Regulatory Frameworks for Maritime Transport in the Arctic: Will a Polar Code Contribute to Resolve Conflicting Interests?," in John Grue and Roy H. Gabrielsen (eds.), Marine Transport in the High North (Oslo: Novus forlag, 2011), 73, at 77. On the "unambiguous" intention behind Article 234, see Aldo Chircop, "The Growth of International Shipping in the Arctic: Is a Regulatory Review Timely," International Journal of Marine & Coastal Law 24 (2009): 355, at 371.
- 70. For a recent reiteration of the U.S. position, see White House, National Strategy for the Arctic Region, 10 May 2013, at 9, available at obamawhitehouse.archives.gov/sites/default/ files/docs/nat_arctic_strategy.pdf.
- See for example, Bernard H. Oxman, "Observations on Vessel Release under the United Nations Convention on the Law of the Sea," International Journal of Marine and Coastal Law 11 (1996): 201, at 204.
- Pharand, supra note 69, at 47.
- 73. Polar Code, supra note 13, at Preamble, paragraph 5.
- 74. Bartenstein, supra note 67, at 24ff., in particular at 25.
- 75. Ibid., at 41ff., in particular at 45.
- 76. This is also the view taken by Fauchald, supra note 69, at 77 (indirectly) and 80, and Chircop, supra note 68, at 280.
- 77. See MARPOL Convention, supra note 12, and Amendments to MARPOL as part of the Polar Code, supra note 13.
- 78. ASSPPR, supra note 10, at section 13.
- 79. AWPPA, supra note 5, at section 4.
- 80. ASSPPR, supra note 10, at section 15.
- 81. Ibid., at section 16.
- 82. *Ibid.*, at section 17.
- 83. Ibid., at section 19 (to be read together with section 20).
- 84. ASPPR, supra note 16, at section 28 (repealed, see ASSPPR, supra note 10, at section 34.
- 85. ASSPPR, supra note 10, at section 22.
- Ibid., at section 20. Of note, while the prohibition of sewage deposit is new in Canadian law, the exceptions have been criticized as being excessively broad, thus calling the provision's effectiveness into question.
- 87. *Ibid.*, at section 23.
- 88. Ibid., at section 24 (to be read together with section 25).
- 89. *Ibid.*, at section 25.
- 90. *Ibid.*, at section 4(1).
- 91. Ibid., at section 26.
- 92. That is, according to the definition in ibid., section 12, "a vessel designed for operation in polar waters in at least medium first-year ice, that may include old ice inclusions."
- 93. Polar Code, supra note 13, at chapter 1.1.2 (II-A).
- 94. AWPPA, supra note 5, at section 4(1).

- 95. International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), Resolution MEPC.19(22), 5 December 1985, in *Report of the Marine Environment Protection Committee on its Twenty-second Session*, Annex 5, IMO Doc MEPC 22/21/Add.1, as amended.
- 96. See supra note 92.
- 97. That is, according to the definition in AWPPA, supra note 5, section 12, "a vessel not included in Category A that is designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions."
- 98. ASSPPR, supra note 10, section 18.
- 99. Polar Code, supra note 13, at chapter 2.1.3 (II-A)
- 100. See supra note 85 and accompanying text.
- 101. See supra note 86 and accompanying text.
- 102. ASSPPR, supra note 10, at section 21.
- 103. Ibid., at section 26.
- 104. AWPPA, supra note 5, at section 4(1).
- 105. See LOSC, supra note 18, at articles 92 and 94. See also article 211(2), confirming that provisions like those of the *Polar Code* are a minimum standard a state may chose to raise for vessels flying its own flag.
- 106. LOSC, supra note 18, at article 21(1)(f).
- 107. Ibid, at article 21(2); see also note 62 and accompanying text.
- 108. See supra note 81 and accompanying text.
- 109. LOSC, supra note 18, at article 21(2).
- 110. Ibid., at article 56(1)(b)(iii).
- 111. Ibid., at articles 56(2) and 58(2).
- 112. Ibid., at article 211(5).
- 113. Ibid., at articles 92, 94, 211(2).
- 114. Indirectly, ibid., at article 2(1).
- 115. Ibid., at articles 211(4), 21(1)(f).
- 116. ASSPPR, supra note 10, at section 16. See also supra note 82 and accompanying text.
- 117. LOSC, supra note 18, at articles 56(2), 58(2), and, in particular, 211(5).
- 118. See also supra note 76 and accompanying text.
- 119. See Suzanne Lalonde, "Increased Traffic through Canadian Arctic Waters: Canada's State of Readiness," *Revue Juridique Thémis* 38 (2004): 49, at 61 and 64. See also Nicholas C. Howson, "Breaking the Ice: The Canadian-American Dispute over the Arctic's Northwest Passage," *Columbia Journal of Transnational Law* 26 (1988): 337, at 354.
- 120. Rosemary Rayfuse, "Coastal State Jurisdiction and the Polar Code: A Test Case for Arctic Oceans Governance?," in Tim Stephens and David L. VanderZwaag (eds.), *Polar Oceans Governance in an Era of Environmental Change* (Cheltenham: Edward Elgar Publishing, 2014), 235, at 240.
- 121. Letter, supra note 3.
- 122. See AWPPA, supra note 5, at article 3.
- 123. In the same year, Canada modified its acceptance of the compulsory jurisdiction of the International Court of Justice with the effect of excluding "disputes arising out of or concerning jurisdiction or rights claimed or exercised by Canada [...] in respect of the prevention or control of pollution or contamination of the marine environment in marine areas adjacent to the coast of Canada" (see Canadian Declaration Concerning the Compulsory Jurisdiction of the International Court of Justice, 7 April 1970, reproduced in 9 I.L.M. 598–599). This decision can certainly be seen as an admission, on the part of Canada, that the legal basis of AWPPA was at least doubtful.
- 124. Canada, Parliament, *House of Commons Debates*, 28th Parliament, 2nd Session, Vol. 6 (16 April 1970), at 5951 (Mitchell Sharp, Minister of External Affairs).
- 125. Ted McDorman, Salt Water Neighbors: International Ocean Law Relations between the United States and Canada (Oxford: Oxford University Press, 2009) at 67.
- General Assembly, Resolution 2750C (XXV), 17 December 1970, (1970) United Nations Yearbook 82–83.



- See Donald M. McRae, "The Negotiations of Article 234," in Franklyn Griffiths (ed.), Politics of the Northwest Passage (McGill-Queen's University Press, Montreal, 1987), 98ff. and Bartenstein, supra note 67, at 23ff.
- This is indicated in a remark made in 1985 by then Foreign Minister Clark in the wake of another adjustment made to Canada's acceptance of the compulsory jurisdiction of the International Court of Justice, with the effect, this time, of recognizing the Court's jurisdiction of the disputes arising out of measures such as the AWPPA. Canada, Parliament, House of Commons Debates, 33rd Parliament, 1st Session, Vol. 5 (10 September 1985), at 6462ff., in particular at 6464 (Joe Clark, Minister for Foreign Affairs); see also at 6463 regarding the international recognition of Canada's jurisdiction in the "100 mile pollution prevention control zone in arctic waters."
- See supra note 2. 129.
- For details, see McDorman, supra note 125, at 246ff.
- Agreement on Arctic Cooperation (11 January 1988, CTS 1988/29). In the Agreement both states commit to facilitating icebreaker navigation, notably for the purpose of research, in their respective Arctic waters and to sharing knowledge gained through these voyages, while agreeing that their respective legal positions were not affected, neither by the agreement nor by the practice thereunder (see Articles 3 and 4).
- Territorial Sea Geographical Coordinates (Area 7) Order, SOR/85-872.
- Clark, supra note 128, at 6463.
- 134. Canada, Canada's Northern Strategy: Our North, Our Heritage, Our Future (Ottawa, 2009), see archived version available at www.nothernstrategy.gc.ca, accessed 26 June 2018.
- See announcement: Canada, "PM Announces Government of Canada Will Extend Jurisdiction over Arctic Waters," 27 August 2008, Press Release from Prime Minister of Canada, archived content available at web.archive.org/web/20080906065156/pm.gc.ca/eng/ media.asp?id = 2248, accessed 2 July 2018. See also Prime Minister of Canada, "Extending the Jurisdiction of Canadian Environment and Shipping Laws in the Arctic," 27 August 2008, archived content available at web.archive.org/web/20100113213839/pm.gc.ca/eng/ media.asp?id = 2246, accessed 2 July 2018.
- See Act to amend the Arctic Waters Pollution Prevention Act, Statutes of Canada 2009, ch. 11, section 1.
- 137. See supra note 7.
- For more details, see discussion, supra third section, second subsection.
- See notably United States and INTERTANKO, Northern Canada Vessel Traffic Services Zone Regulations, MSC 88/11/2, 22 September 2010, IMO Doc. MSC 88/11/2 (2010), para. 2.
- Declaration on the Establishment of the Arctic Council (Ottawa Declaration), 19 September 140. 1996, available at arctic-council.org/filearchive/ottawa_decl_1996-3.pdf, accessed 16 August 2018. See also Andrea Charron, "Canada and the Arctic Council," International Journal 67 (2012): 765.
- 141. Protection of the Arctic Marine Environment (PAME), Arctic Marine Shipping Assessment (AMSA) Report, 2009, available at www.pame.is/images/03_Projects/AMSA/AMSA_2009_ report/AMSA 2009 Report 2nd print.pdf, accessed 15 August 2018.
- 142. See Aldo Chircop, "Regulatory Challenges for International Arctic Navigation and Shipping in an Evolving Governance Environment," Ocean Yearbook 28 (2014): 269, at 278ff.
- The establishment of the Arctic Economic Council was a key outcome of the Canadian chairmanship and a controversial one, as its focus on economic development was a departure from the Arctic Council's usual focus on environmental protection and sustainable development.
- For a discussion of Canada's chairmanship, see Heather Exner-Pirot, "Canada's Arctic Council Chairmanship (2013-2015): A Post-Mortem," Canadian Foreign Policy Journal 22
- 145. Ottawa Declaration, supra note 140, at Article 1(a).

- 146. Canada, *Canada's Arctic Council Chairmanship 2013–2015*, 15 May 2013, available at oaarchive.arctic-council.org/handle/11374/2080 (accessed 2 July 2018), second highlight "Safe Arctic shipping."
- 147. Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, 15 May 2013, available at oaarchive.arctic-council.org/handle/11374/529 (accessed 15 June 2018).
- 148. See Arctic Council (Emergency Prevention, Preparedness and Response, EPPR), "Arctic Exercise: After Action Report. On the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic" (2014), available at oaarchive.arctic-council.org/handle/11374/404 (accessed 2 July 2018).
- 149. PAME, "Arctic Marine Tourism Project (AMTP). Best Practice Guidelines" (2015), available at oaarchive.arctic-council.org/handle/11374/414 (accessed 2 July 2018).
- 150. *Ilulissat Declaration*, 28 May 2008, available at arctic-council.org/filearchive/Ilulissat-declaration.pdf (accessed 2 July 2018).
- 151. For an overview, see Rob Huebert, "The Arctic and the Strategic Defence of North America: Resumption of the 'Long Polar Watch'," in Christian Leuprecht et al. (eds), North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World (Springer Nature, 2018, doi.org/10.1007/978-3-319-90978-3, 174.
- 152. Foreign Affairs and International Trade Canada, "Canada's Extended Continental Shelf Program (Second Formative Evaluation)—Final Report, October 2011, available at publications.gc.ca/site/eng/432828/publication.html (FR5-74-2011-eng.pdf).
- 153. Declaration Concerning the Prevention of Unregulated High Seas Fisheries in the Central Arctic Ocean, 16 July 2015, available at www.regjeringen.no/globalassets/departementene/ud/vedlegg/folkerett/declaration-on-arctic-fisheries-16-july-2015.pdf and Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, negotiations of the draft text concluded on 30 November 2017 (available at eur-lex.europa.eu/legal-content/EN/ALL/?uri = CELEX:52018PC0454, accessed 14 August 2018).
- 154. LOSC, supra note 18, at article 88.
- 155. Chircop, supra note 68, at 276.
- 156. See Canada, Development of a Mandatory Code for Ship Operating in Polar Waters: Proposed Framework for the Code of Ships Operating in Polar Waters, DE 53/18/2, 20 November 2009, IMO Doc. DE 53/18/2 (2009), 7, para. 2.11.
- 157. Friends of the Earth et al., *Development of a Mandatory Code for Ship Operating in Polar Waters: Developing a Strong Polar Code*, DE 56//INF.14, 9 December 2011, IMO Doc. DE 56//INF.14 (2011), Annex, at 27ff.
- 158. See Russian Federation, *Procedure of Accounting for National Regulations*, DE 55/12/23, 1 February 2011, IMO Doc. DE 55/12/23 (2011), para. 5.
- 159. MARPOL Convention, supra note 12, at article 9(2).
- 160. See IMO, Status of Treaties: Comprehensive Information on the Status of Multilateral Conventions and Instruments in Respect of Which the International Maritime Organization or Its Secretary-General Performs Depositary or Other Functions, as of 14 June 2018," available at www.imo.org/en/About/Conventions/StatusOfConventions/ Documents/Status%20-%202018.pdf, at 127 (Canada, "2. Arctic Waters" b), accessed 15 August 2018.
- 161. SOLAS Convention, supra note 11, at Chapter XIV, regulation 2, para. 5.
- 162. Jensen, supra note 63, at 77.
- 163. See infra, fourth section.
- 164. Chircop, supra note 68, at 289.
- 165. See supra note 161.
- 166. Such arguments have been made by Chircop, supra note 68 at 281ff., and by Ted McDorman, "A Note on the Potential Conflicting Treaty Rights and Obligations between the IMO's Polar Code and Article 234 of the Law of the Sea Convention," in Suzanne Lalonde and Ted McDorman (eds.), International Law and Politics of the Arctic Ocean: Essays in Honor of Donat Pharand (Leiden: Brill, 2015), 141.



- This is the argument made by Fauchald, supra note 69, at 83, before the conflict clause was negotiated. See also Henriksen, supra note 64, at 380.
- See discussion supra section II.1.3. 168.
- See LOSC, supra note 18, Articles 211 and 220 in particular.
- See also Chircop, supra note 68, at 281. 170.
- 171. Canada, Amendments to the International Convention for the Safety of Life at Sea, MSC 93/ 10/12, 25 March 2014, IMO Doc. MSC 93/10/12 (2014). Note that Canada submitted a slightly different wording, but referred to a clause with the same wording as an example sustaining its argument.
- See to this effect also Henriksen, supra note 64, at 380. 172.
- See Chircop, supra note 68, at 283. See also Henriksen, supra note 64, at 381. 173.
- The coastal state might be required to provide increased scientific evidence to justify its choice of a different level of protection und der the second sentence of LOSC Article 234; see supra note 65.
- See AWPPA, supra note 5, at nsection 4. For the exceptions see LOSC Article 234, supra 175. note 65, at sections 28 and 29.
- 176. ASPPR, supra note 16. To name but a few, see sections 4 to 9 on "Construction of Ships" and section 10 on "Bunkering Station" for construction-related obligations, section 26 on "Ice-Navigator" for a manning provision, section 27 on fuel and water aboard for equipment requirements, and sections 12 to 18 on certification for operational measures.
- See supra note 136. 177.
- 178. NORDREG, supra note 7.
- Canada Shipping Act, 2001, S.C. 2001, c. 26, Article 126(1). 179.
- Letter of the U.S. Embassy in Canada to Transport Canada, 19 March 2010, in Elizabeth R. Wilcox (ed.), Digest of the United States Practice in International Law (International Law Institute, Washington, 2010), 514, at 516.
- Diplomatic note of the U.S. Embassy in Canada to Foreign Affairs and International Trade Canada cited in ibid., at 518.
- 182. For details, see Ted McDorman, "National Measures for the Safety of Navigation in Arctic Waters: NORDREG, Article 234 and Canada," in Myron H. Nordquist et al. (eds.), The Law of the Sea Convention US Accession and Globalization (Leiden: Nijhoff, 2012), 409, at 409-414. See also Kristin Bartenstein, "Navigating the Arctic: The Canadian NORDREG, the International Polar Code and Regional Cooperation," German Yearbook of International Law 54 (2011): 77, at 92ff.
- United States and Baltic and International Maritime Council (BIMCO) in IMO, Sub-Committee on Safety of Navigation, Report to the Maritime Safety Committee, NAV 56/20, 31 August 2010, IMO Doc. NAV 56/20 (2010), para. 19.23.
- United States and INTERTANKO, supra note 139, at para. 3
- 185. See Germany's view as conveyed in IMO, Report of the Maritime Safety Committee on its Eighty-eighth Session, MSC 88/26, 15 December 2010, IMO Doc. 88/26, para. 11.35.
- 186. Singapore, in *ibid.*, at para. 11.36.
- McDorman, supra note 182, at 414. 187.
- 188. Canada, Comment on Document MSC 88/11/2, MSC 88/11/3, 5 October 2010, IMO Doc. MSC 88/11/3 (2010), paras. 1 and 5.
- See also MSC 88 Report, supra note 185, at paras. 11.37 and 11.39.
- See also James Kraska, "The Northern Canada Vessel Traffic Services Zone Regulations" International Journal of Marine and Coastal Law 30 (2015): 225, at 247.
- See ASPPR, supra note 16. 191.
- This phase has gotten formally underway with the establishment of a Working Group on Safety Measures for Non-SOLAS Ships Operating in Polar Waters; see IMO Marine Safety Committee, Report of the Maritime Safety Committee on its Ninety-ninth Session, MSC 99/ 22, 5 June 2018, IMO Doc. MSC 99/22 (2018), para. 7.9.

- 193. Statement by the Russian Federation in IMO, HTW Report to the Maritime Safety Committee, HTW 1/21, 7 March 2014, IMO Doc. HTW 1/21, Annex 12, at 1, and Canada, Specialist Ice Advisor, MSC 93/11/2, 25 March 2014, IMO Doc. MSC 93/11/2 (2014).
- 194. See J. Ashley Roach, "The Polar Code and its Adequacy," in Robert C. Beckman *et al.* (eds.), *Governance of Arctic Shipping* (Leiden: Brill, 2017), 144, at 149.
- 195. ASSPPR, supra note 10, at section 10. See also supra note 47 and accompanying text.
- See Transport Canada, Pilotage Act Review, 2018, www.tc.gc.ca/documents/17308_TC_ Pilotage_Act_Review_v8_final.pdf, at viii.
- 197. See supra second section, firs subsection.
- 198. Chircop, supra note 68, at 285.
- 199. It should be noted that a prohibition of the use of HFO has applied to the southern ocean since 2011 (see IMO, *Amendments to the Annex of MARPOL*, Res. MEPC.189 (6), 26 March 2010, IMO Doc. MEPC 60/22, Annex 10: Chapter 9, Regulation 43 is added to MARPOL Annex I). Under the *Polar Code* additional guidance, vessels are encouraged to apply the regulation also when navigating in the Arctic (see *Polar Code*, supra note 13, Part II-B, Additional guidance to chapter 1, 1).
- 200. For more details, see Chircop, supra note 68, at 284ff.
- 201. Roach, supra note 194, at 157, fn. 43, notes, however, that "the Polar Code discharge restrictions in effect make the Arctic Ocean a MARPOL Special Area without saying so."
- 202. For a detailed study of the current state of Canadian Arctic shipping law in light of the Polar Code, see Aldo Chircop et al., "Canada's Implementation of the Polar Code," *Journal of International Maritime Law* 24, no. 6 (2018): 1.