An International Approach to Environmental Protection in the Northwest Passage

by

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Abstract

This paper evaluates the current international environmental regime governing shipping through the Northwest Passage. Significant literature now exists claiming that the sole means by which to afford adequate protection for the Arctic marine environment is through a Canadian assertion of sovereignty. Historically, there have been strong challenges to Canada’s assertion of sovereignty over the waters of the Arctic Archipelago. Further, a focus on sovereignty could in fact be detrimental to the Canadian position, since it distracts from the practical issues involved in protecting the Arctic environment. Based on three primary sources of international law, namely the UN Law of the Sea Convention, the IMO Guidelines for Ships Navigating in Ice-Covered Waters and the activities of the Arctic Council, this paper argues that the current international regime provides a strong and adequate basis on which to pursue protection for the Arctic environment.
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ACIA – Arctic Climate Impact Assessment
AEPS – Arctic Environmental Protection Strategy
AMAP – Arctic Monitoring and Assessment Program
AMSA – Arctic Marine Shipping Assessment
ASPPR – Arctic Shipping Pollution Prevention Regulations
AWPPA – Arctic Waters Pollution Prevention Act.
CAFF – Conservation of the Arctic Flora and Fauna
EEZ – Exclusive Economic Zone
EPPR – Emergency Prevention, Preparedness and Response
ICJ – International Court of Justice
IMO – International Maritime Organization
MARPOL – International Convention for the Prevention of Pollution from Ships
PAME – Protection of the Arctic Marine Environment
SHEBA – Surface Heat Budget of the Arctic Ocean Study
SOLAS – International Convention for the Safety of Life at Sea
WWF – World Wildlife Fund
1. Introduction

Recent studies suggest that ice in the Arctic is retreating at a rate faster than previously anticipated.¹ This means that greater access will be available for human activity in the area. This could have potential benefits for the local population, since the Arctic holds substantial natural resources. However, an increased human presence in the area also creates conditions for an increase in environmental damage. For this reason, a considerable literature has appeared regarding the most effective means through which to provide protection for the Arctic marine environment that includes the World Wildlife Fund (WWF)’s *International Governance and Regulation of the Marine Arctic: Overview and Gap Analysis*, Lalonde’s “Increased Traffic through Canadian Arctic Waters: Canada’s State of Readiness”, Nowlan’s “Arctic Legal Regime for Environmental Protection”, and Sherrin’s “International Law and Canadian Arctic Pollution Control”. A significant proportion of the increased traffic through the Arctic Archipelago is anticipated to be through the Northwest Passage. For this reason, this thesis focuses on the protection of the environment by the regulation of shipping through the Northwest Passage.

Commentators such as Huebert have argued that the most effective manner in which Canada can provide an adequate level of environmental protection is through the assertion of sovereignty over the Northwest Passage.² This would enable the government to ensure there exists strong regulatory powers for the

protection of the environment, as well as sufficient resources for enforcement. However, the issue of sovereignty over the Northwest Passage is contentious. Numerous countries dispute the Canadian assertion of sovereignty, claiming that the Passage is an international strait, thereby limiting Canada’s ability to regulate in the area. However, it will be argued that the issue of sovereignty need not be resolved in order to protect Canadian interests as a considerable number of the desired environmental protections can be achieved through the established international regime. In fact, a focus on the sovereignty issue may be counter-productive, and detracts attention from essential concerns regarding the region, including the environmental protection.

The international regime regulating shipping through the Northwest Passage is derived from both treaty and soft-law sources. There are numerous international legal instruments that apply to the Arctic, either through application to a global shipping regime, or with particular application to the Arctic region. Three main sources apply specifically to the unique challenges of the Arctic. First is the United Nations Convention on the Law of the Sea (UNCLOS). In the current context, the UNCLOS regime is primarily evaluated in relation to the extent of jurisdiction that it offers to Arctic coastal states. Second is the International Maritime Organization (IMO)’s Guidelines for Ships Operating in Arctic Ice-covered Waters. These Guidelines set out recommendations regarding the technical requirements of the environmental regime, including the construction of Arctic-going vessels, composition and training of crews, and emergency procedures. Third is the Arctic Council. The Arctic Council plays two primary roles with regard to the protection of
the Arctic environment, namely the coordination of policies amongst Arctic states and supporting scientific study to ensure that policies are reflective of the best evidence available.

This thesis sets out the substantive elements of these sources of law, along with an evaluation of how they contribute to the international Arctic shipping regime in relation to environmental protection. Ultimately, the conclusion is drawn that, while some improvements are necessary, the international regime for protection of the environment provides a substantial basis on which Canada can provide for environmental protection of the Northwest Passage from the anticipated increase in international shipping.

2. Threats to the Arctic Environment

Relative to the more southerly oceans, the geographical isolation and challenging terrain of the Arctic has to date served as a buffer against some of the more detrimental effects of human activity. It is not the case, however, that the Arctic has been left entirely untouched. For example, a recent study published in Polar Biology states that fishing in the Arctic has been vastly under reported, and that 950,000 tons of fish have been caught in the Arctic between 1950 and 2006, a number 75 times higher than previously reported.3

In recent years, scientists have observed numerous startling changes to the Arctic environment. According to the Arctic Climate Impact Assessment (ACIA)

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report, the average annual temperature has risen by approximately 2 to 3 degrees Celsius since the 1950s. Even though seemingly minimal, this change in temperature can have a profound environmental effect. This was demonstrated in the *Surface Heat Budget of the Arctic Ocean* (SHEBA) Study, which reported that between the years 1975 and 1997 the Arctic waters became noticeably desalinated through dilution as a result of the melting ice. While it appears that this natural process cannot be reversed, this lowering salt content is yet further evidence that the Arctic environment is under considerable natural pressures beyond those posed by increased human activity.

The Canadian Ice Service has measured the shrinkage of the ice in the Arctic at a rate approximating 3% per decade since 1978. This shrinkage gives rise to a number of consequences. First, it challenges the basis for wild life in the Arctic. For example, the difficulties that Polar Bears have had reacting to this new state of affairs have been well documented. Second, it presents a challenge to the traditional knowledge of northern peoples, affecting their ability to hunt for food and navigate on the ice.

However, retreat of the ice also introduces new possibilities for development in the north, one of which is offshore oil drilling and, more importantly in the

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7 See, e.g., “Late Hudson Bay Ice Imperils Polar Bears.” *CBC News* (18 November 2010), online: CBC News <www.cbc.ca>.
8 See, e.g., Ford, James, and Smit, Barry, “Human implications of climate change in the Canadian Arctic: A case study of Arctic Bay, Nunavut.” in *Proceedings of the Northern Research Forum Conference* (Yellowknife, September 2004).
current context, travel through the Northwest Passage. Estimates vary regarding when the Northwest Passage will become a viable shipping route. However, numerous scholars acknowledge that such a possibility could avail itself sooner than previously anticipated. With the possibility of the Northwest Passage becoming navigable earlier than previously speculated, the urgency of evaluating the ability of the environmental protection regime to address the future associated challenges has increased.

Numerous authors have taken the position that a determination of the issue of sovereignty is an essential element to ensure adequate protection for the environment. The difficulty with this position lies, however, in the lack of acceptance that the Canadian assertion of sovereignty has had in the international community. In order to demonstrate this difficulty, the following section provides an overview of the various bases that the Canadian government has provided for sovereignty over the Northwest Passage, and the challenges with which they have been met.

3. Debate Regarding the Status of the Northwest Passage

Although there is only one island subject to a sovereignty dispute in the Canadian Arctic Archipelago, there is significant disagreement regarding the legal status of the waters surrounding the Archipelago. The Canadian government has

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10 See, e.g., Huebert at 295.
11 Namely, Hans Island.
proposed three primary justifications on which to base sovereignty over the waters, namely the sector theory, the straight baselines theory and the historic usage theory. Each of these approaches to sovereignty is surveyed, highlighting their weaknesses as bases on which to pursue sovereignty over the Northwest Passage.

3.1. Sector Theory. The sector theory claims that Canadian sovereignty extends in a pie shaped boundary beyond the islands in the Canadian Arctic Archipelago, thereby encompassing the entire Northwest Passage. Pharand outlines three possible justifications underlying the sector theory. The first is based on the 1825 Treaty between Great Britain and Russia, interpreting the land border between Alaska and the Yukon territory as extending to the North Pole and, on the east side of the Archipelago, to the boundary with Greenland. Pharand points out that the weakness in this position is that it is unsupported by the original French text of the Treaty. The second is based on the doctrine of “contiguity”, which states that, “the effective occupation of part of a region or territory [gives] title to the whole of the unoccupied region or territory proximate enough to be considered as a single geographic unit with the occupied portion” . Although international courts have accepted this doctrine, as reflected in the Bulama Island Case (1870), it has been used only for land claims and has not been extended to include the surrounding waters. It therefore appears that such a justification does not provide a basis for the inclusion of the Northwest Passage as constituting internal waters.

The third justification for the sector theory is based on an argument from customary

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12 Pharand, Donat, Canada's Arctic waters in international law. (Cambridge: Cambridge University Press, 1988) at 28.
13 Pharand at 28.
14 Pharand at 38.
international law. According to Art 38 1(b) of the Statute of the International Court of Justice, international custom arises from “...general practice accepted as law”.

There are two elements to this definition. First, there must be “consistent and general” practice amongst states. Second, the international community must accept such practice as law. With regard to the second prong of the test, there has been no consensus supporting the Canadian application of the sector theory amongst the international community, suggesting that it has not reached the level of customary law in relation to the Arctic Archipelago. The conclusion to be drawn from the foregoing discussion is that sector theory does not provide an adequate justification for Canadian sovereignty over the Northwest Passage from an international perspective.

3.2. Straight Baselines Theory. The second justification that the Canadian government provided for sovereignty was the “straight baselines” theory. This position was taken in response to a perceived threat to Canadian sovereignty over the Northwest Passage, namely the unauthorized voyage of the ship, The Polar Sea, through Arctic waters. According to this approach, “...where a coast is deeply indented or is bordered by an Archipelago, it is permissible to draw straight baselines, across the indentations and between the outermost points of the islands,

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15 Pharand at 44.
16 United Nations Statute of the International Court of Justice, 18 April 1946, Art. 38 1(b).
18 Ibid. at 148.
19 Ibid. at 148.
20 Pharand at 79.
from which the territorial sea is measured”22. The decision of the International Court of Justice in the *Fisheries Case* of 1951 established the requirements for the application of straight baselines as being, “[w]here a coast is deeply indented and cut into...or where it is bordered by an Archipelago...the baseline becomes independent of the low-water mark, and can only be determined by means of a geometrical construction”23. The Canadian Arctic Archipelago meets this general characterization.

The current requirements of straight baselines in relation to archipelagos are set out in UNCLOS as follows:

1. An archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs on the archipelago (...)

3. The drawing of such baselines shall not depart to any appreciable extent from the general configuration of the archipelago24.

By drawing straight baselines from the outermost points of the outermost islands, the Northwest Passage would clearly be included within Canada’s sovereign territory. However, it is less clear whether the drawing of such baselines is consistent with the “appreciable extent” requirement. While there is no explicit definition as to what would violate this provision, some commentators have held that the Archipelago and the distances between the islands are too vast to meet this requirement.25 Contrary to this position, King has argued26 that straight baselines

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22 Pharand at 131.
23 *Fisheries Case (United Kingdom v Norway)*, [1951] IC Rep 116 at 129.
could be justified under a broad interpretation of the holding of the ICJ in the
Fisheries Case, which states that "a State must be allowed the latitude necessary...to
adapt its delimitation [of straight baselines] to practical needs and local
requirements". However, there is an important distinction to be made between the
two cases. The Fisheries Case dealt with a determination of the jurisdiction for the
regulation of fisheries that was disputed between two nations. This current
situation, on the other hand, involves the question of whether Canada can
implement regulations limiting the world’s access to the area in order to introduce
protection of the Arctic environment. On this basis, the drawing of baselines would
exceed what is “necessary” to meet the “practical needs and local requirements”.

3.3. Historic Usage. The third justification that the Canadian government has
provided for its sovereignty claim is “historic usage”. The ICJ determined in the
Fisheries Case of 1951 that waters can form part of a nation’s territory, and therefore
can have the same status as land. The ICJ stated the principle governing such
designation as follows: “by ‘historic waters’ are usually meant waters which are
treated as internal waters but which would not have that character were it not for
the existence of an historic title”.

Three requirements for a claim of historic waters have been generally
accepted, namely: “(1) the exclusive exercise of State authority; (2) long usage or the
passage of time; and (3) the acquiescence of foreign States”. The Canadian

27 Fisheries Case (U.K. v. Norway) at 130.
28 Ibid. at 130.
29 Pharand at 92.
30 Fisheries Case (U.K. v Norway) at 18.
31 Pharand at 97.
government has attempted to exercise exclusive authority over the area through numerous domestic statutes. Examples of legislation in this area include the *Arctic Shipping Pollution Prevention Regulations*32 and the *Arctic Waters Pollution Prevention Act*33.

The durational requirement is demonstrated through Inuit occupation over a lengthy period in which the water was used for hunting and fishing, as well as navigation. It is submitted, however, that the greatest challenge to a Canadian claim under historic waters is the third requirement, namely acquiescence by other states. There are numerous instances in which states have challenged Canada’s claim to full sovereignty over the waters of the archipelago.34

3.4. *International Strait Regime.* The international strait regime under Part III of UNCLOS presents a substantial obstacle for Canada's ability to regulate shipping through the Northwest Passage. Were the Northwest Passage to be determined as an international strait by an international tribunal,35 Canada could not legitimately enact or enforce regulations limiting the rights of other states to navigate through the Passage.36 This would provide a significant restriction on Canada’s ability to enforce environmental provisions in the Arctic.

The international strait regime is governed by Part III of UNCLOS, which includes the right of transit passage,37 meaning that vessels cannot be impeded from

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34 See, e.g., the response of the U.S. and the European Community as described in Clark at 91.
35 UNCLOS, Art 281.
36 Ibid., Art 44.
37 Ibid., Art 38(1).
entering or traversing the passage. Regulations regarding the construction of vessels traversing the Northwest Passage, or requirements regarding the registration of vessels entering the region, would comprise an important element of the protection of the environment. It could be argued that such regulations would bar or limit access of those ships that do not meet the requirements. The forgoing reflects significant barriers to effective environmental regulation that would exist, were the Northwest Passage to be considered an international strait. It would also provide a serious challenge to Canada’s enforcement capability in the Northwest Passage.

UNCLOS defines international straits as those that are “used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone”\textsuperscript{38}. It is clear that the Northwest Passage connects two high seas bridging the Arctic and Atlantic Oceans. The essential element of this definition, however, is that the international strait must be actually used for international navigation. There is an absence of standards regarding how many voyages are necessary to meet this requirement.

The leading case from the ICJ regarding the number of vessels required for a custom of international navigation to exist is the Corfu Strait Case. Substantially more ships have passed through the Corfu Channel compared to the Northwest Passage. This case did not, however, identify what constitutes the minimum threshold. The ICJ concluded that, based on the significant number of vessels that

\textsuperscript{38} UNCLOS, Art 37.
regularly passed through the Corfu strait, it did meet the definition of an international strait.\textsuperscript{39}

There is however an important distinction to be made between the two cases. Due to the geographical location of the Northwest Passage and the hazardous conditions that are normally present, there may be a legitimate argument in favour of a lower threshold for the number of ships required to establish a custom in this region relative to the Corfu Strait. The Corfu Strait is located in a warmer climate where there is a greater possibility for ships to navigate. The Northwest Passage is more remote and its conditions are prohibitive of entrance for much of the year.\textsuperscript{40}

Another issue that was not addressed in the Corfu Strait case was whether potential voyages would be included within an evaluation of custom.\textsuperscript{41} Ex facie, such voyages would appear not to be included, since custom focuses on ‘actual’ usage. It may be important in the current case however, to consider whether potential voyages could count in a determination regarding the status of the Northwest Passage. Recall the definition of customary law cited above requiring two elements: a practice among states, and the practice be accepted in the international community as law.\textsuperscript{42} While navigation in the area has been limited, there is evidence that it has been steadily increasing with the retreat of the ice.\textsuperscript{43} There is also evidence that a significant number of states accept it as the legal right of all states to pass through the Northwest Passage, relying on its perceived status as an

\textsuperscript{39} Corfu Channel Case (United Kingdom v Albania), Assessment of Compensation, [1949] IC Rep 4 at 29.
\textsuperscript{40} King at 285.
\textsuperscript{41} Lalonde at 87.
\textsuperscript{42} Kindred and Saunders at 148.
\textsuperscript{43} AMSA Report, pg. 38.
international strait.\textsuperscript{44} It is unclear how the ICJ would decide, were it to be approached with this question in relation to the Northwest Passage. Based on the limited number of ships that have successfully passed through the Northwest Passage to this date, it is doubtful whether a custom has been established.\textsuperscript{45} However, if there continues to be an increase in the number of ships passing through, it may be the case that a custom does arise from the actions of states passing through the Northwest Passage.

As discussed previously, if the Northwest Passage were determined to be an international strait under Art 37, Canada’s ability to regulate the area would significantly decrease. However, Canada would still be able to create regulations under Art 42.1(b) for:

the prevention, reduction and control of pollution, by giving effect to applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances in the strait (…)\textsuperscript{46}

This suggests that Canada could implement and enforce international regulations with regard to pollution even if the Northwest Passage were determined to be an international strait. However, without the ability to regulate shipping through the Northwest Passage, the efficacy of such measures would be severely limited.

3.5. The Canadian Government’s Approach to Environmental Protection in the Region. The foregoing analysis reflects the multiple positions that Canada has taken to sovereignty over the Northwest Passage. Such inconsistency is indicative of a weakness in the position. Further, it suggests a lack of acceptance on the part of

\textsuperscript{44} Clark at 91.
\textsuperscript{45} King at 286.
\textsuperscript{46} UNCLOS, Art 42.1(b)
other nations of the justifications set forth by the Canadian government. Therefore, an approach to the protection of the marine environment that relies on the acceptance of a Canadian claim to sovereignty is insufficient. It is conditional on the international acceptance of a Canadian justification, which the foregoing analysis suggests is doubtful. Indeed, reliance on the domestic determination of the Northwest Passage under Canadian sovereignty, in conjunction with the increase of traffic through the waters of the Arctic Archipelago, increases the likelihood of a challenge to this status before an international tribunal. As previously discussed, this could have the undesirable effect of a determination being made that the Northwest Passage meets the conditions of an international strait.

Much of Canadian policy in the North has been a reaction to events that are viewed as challenging Canada’s authority in the region. Examples of this include the Arctic Waters Pollution Prevention Act, which was introduced in response to the crossing of the Northwest Passage by the US oil tanker, SS Manhattan.47 This is one reason for the significant amount of Canadian policy that focuses on promoting sovereignty over the region. Under Prime Minister Stephen Harper, the Canadian government has introduced a “Northern Strategy” to deal with a wide range of issues regarding the North.48 In this document, the government reaffirmed a commitment to “exercising” sovereignty,49 perhaps referring to Harper’s “use it or lose it” approach to Arctic sovereignty.50 However, the very fact of Canada’s

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47 Clark at 85.
49 Ibid.
involvement in such initiatives as the Arctic Council demonstrate a willingness to utilize a more collaborative approach, such as the one advocated in this thesis. In fact, there is evidence that the Harper government’s strong stance in relation to Arctic sovereignty is primarily for the domestic consumption, and that the actual approach used is more “pragmatic”.51

These two approaches, the assertion of Canadian sovereignty in the region and the more pragmatic approach of working toward specific goals are not incompatible. Operating within the existing international legal order, and contributing to strengthening its application, does not in any manner affect the legal status of the Canadian claim to sovereignty. Given the significant level of disputes regarding Canada’s sovereignty over the Northwest Passage and the urgency of addressing issues such as the protection of the marine environment from Arctic shipping, it is necessary to give effect to the numerous provisions that are available under the international legal order. This is not to infer that Canada could neglect the region while maintaining their claim to sovereignty over the Northwest Passage. For example, in order for it not to fall under the category of an international strait, it is necessary for Canada to regulate voyages through the Northwest Passage.52 Such positions can be maintained, while at the same time contributing to strengthened environmental protection under the international regime.

52 Lalonde at 92.
4. United Nations *Convention of the Law and the Sea*

4.1. Substantive Measures. The United Nations *Convention of the Law and the Sea* (UNCLOS) is an important international legal source regarding the law of the sea generally, and has particular relevance to the Arctic. It provides a codification of existing customary international measures relating to the law of the sea.53 Based on its codification of law of the sea measures, UNCLOS provides an important starting point from which to analyze the international regime. According to the ICJ decision in the *North Sea Continental Shelf* case, international customary law can continue to exist alongside international treaties.54 This means that the UNCLOS regime did not extinguish customary law of the sea measures, but rather placed it on a treaty footing. Measures that were not dealt with explicitly in the treaty can therefore continue to exist in conjunction with UNCLOS. Beyond the codification of customary law, UNCLOS introduces new measures negotiated by the state parties, such as the so-called “Arctic exception” of Art 234.55

According to the UNCLOS regime, there are five potential zones under which the Northwest Passage can fit; namely, the territorial sea, contiguous zone, exclusive economic zone (EEZ), continental shelf, and high seas. An evaluation of the potential impact of these regimes on Canada’s ability to regulate the environmental impact of shipping through the Northwest Passage follows.

54 *North Sea Continental Shelf Case (Federal Republic of Germany v Denmark; Federal Republic of Germany v Netherlands)* 1969 ICJ Rep 3 at 38.
4.1.1. Continental Shelf. The continental shelf regime is governed by UNCLOS Part V, which enables a coastal state to claim exclusive rights to exploit natural resources beyond the 200-nautical mile (nm) limit for EEZ. “Natural resources” refers to both living and non-living resources, including, for example, both fish and oil. Since the Northwest Passage is within 200 nm of the relevant baselines, it falls within Canada’s EEZ and recourse need not be made to the continental shelf extension. It is also important to note there appears to be no contestation regarding Canada’s sovereignty over the resources in the seabed or water column of the Northwest Passage. This recognition of Canadian sovereignty over the natural resources is important in relation to other articles of UNCLOS, since certain provisions are directed primarily toward the protection of natural resources.

4.1.2. High Seas. The high seas regime also does not provide a strong basis on which to pursue environmental protection in the Northwest Passage. The “high seas” refers to any body of water that does not fall within other categories, namely the EEZ, territorial sea or internal waters, or archipelagic waters. Further, the high seas regime does not enable any particular state to pursue environmental regulation; rather the high seas are governed exclusively by the relevant international law. All states are guaranteed freedom of navigation, overflight, lying of submarine cables, construction of artificial islands, fishing and scientific research. The breadth and strength of these freedoms essentially means that no

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56 UNCLOS, Art 56(1)(a)
57 Kindred and Saunders at 462.
58 Byers, Michael, Who Owns the Arctic? (Toronto: Douglas and McIntyre, 2009) at 24.
59 UNCLOS, Art 86
60 UNCLOS, Art 87
61 UNCLOS, Art 87(1)
particular state is capable of enforcing domestic environmental regulations limiting these activities. As will be elaborated upon in a following section, the Northwest Passage does fall within one of the alternate categories, and therefore need not be governed by recourse to the high seas regime.

4.1.3. Territorial Sea. UNCLOS Section 2 establishes the maximum breadth of the territorial sea at 12 nm from the baselines. In the majority of cases, baselines are set at the “low-water line”, the determination of which is articulated in Art 5. Were the baselines to be drawn from the low-water line of the islands that comprise the Canadian Arctic Archipelago, they would not envelope the entire Northwest Passage. However, Art 7 allows for an exception from the low-water mark by way of “straight baselines”, which can be drawn to extend the territorial sea under certain conditions. These conditions include: 1) where there is a fringe of islands along the coast, 2) where natural conditions cause an unstable coastline, straight baselines can be drawn from the furthest point from land, 3) the baseline cannot “depart from any appreciable extent” from the coastline, 4) in general, baselines should not be drawn from the low tide level, and 5) when drawing baselines under “1)”, the coastal state may take into account economic considerations if they are able to demonstrate historic usage, and, finally 6) baselines cannot be used in a manner that disrupts another state’s territorial seas from an EEZ or the high seas.

The Northwest Passage falls within a fringe of islands off the northern coast of Canada that has an unstable coastline as a result of the numerous islands that

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62 UNCLOS, Art 3
64 UNCLOS, Art 7
comprise the archipelago. The requirement that baselines must not be drawn from the low tide level does not present a difficulty, since straight baselines drawn on the east and west of the archipelago would include the Northwest Passage even if the lines were to be drawn from the highest possible watermark.\textsuperscript{65} The historic usage requirement would appear to lend legitimacy to the Canadian claim that the Northwest Passage is part of the territorial sea, as there is significant evidence that the Inuit peoples of Canada have used the Northwest Passage for traditional economic purposes, such as hunting and fishing, over a significant period of time.\textsuperscript{66} With regard to the sixth requirement, were Canada to draw straight baselines, it would not appear to cut off any other state from the high seas or an EEZ, since the Northwest Passage lies between two high seas.

The primary challenge to the Northwest Passage comprising part of Canada’s territorial sea under Section 2 of UNCLOS comes from the third requirement, namely, that baselines cannot depart by an appreciable extent from the coastline. As discussed previously in relation to the Canadian government’s justification for the sovereignty of the Northwest Passage, arguments have been advanced claiming that the drawing of straight baselines that include the Northwest Passage within Canada’s territorial seas would represent too great a departure from the general coastline. This is based on the significant distance that lies between certain of the islands,\textsuperscript{67} such as between Baffin and Devon Islands in the east and between Prince Patrick and Banks Islands in the west. When placed within the context of the

\textsuperscript{65} Killas at 105.
\textsuperscript{66} Lalonde at 73.
\textsuperscript{67} Killas at 126.
Canadian justification for sovereignty over the waters of the Arctic Archipelago, the same criticism regarding the application of straight baselines applies. The baselines appear to deviate to a significant extent from the general direction of the coastline, such as the 98.7-mile baselines across the M’Clure Strait.68

4.1.4. Archipelagic Baselines. UNCLOS Art 47 applies to the drawing of baselines specifically in situations where an archipelago is at issue, as in the case of the Northwest Passage. Art 47 includes certain of the limitations on the drawing of baselines mentioned above, such as not cutting off a state’s territorial sea from the high seas. The relevant further requirements for the drawing of baselines for archipelagic states are as follows: the water to land ratio must fall between 1 to 1 and 9 to 1;69 the length of the baselines cannot be longer that 100 nm, unless “up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles”; and the baselines cannot depart by any “appreciable extent from the general configuration of the archipelago”.70

No clear definition regarding what violates the “appreciable extent” provision is provided. Absent such a definition, the difficulty arises regarding whether the drawing of baselines that traverse the distance of the Northwest Passage represents an illegitimate departure from the direction of the coastline within the archipelago regime. Contrary to the Canadian position that it would be legitimate, some writers claim that such a line would represent a significant

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68 Killas at 127.
69 UNCLOS, Art 47(1)
70 UNCLOS, Art 47(2)
71 UNCLOS, Art 47(3)
departure from the general direction of the coastline. If this were to be the case, then it would be unjustifiable under the provisions of UNCLOS.

4.1.5. Contiguous Zone. Under UNCLOS Art 33, each coastal state can have a contiguous zone up to 24 nm, determined from the same baselines that are used to determine the boundaries of its territorial sea. The contiguous zone allows the coastal state to exercise the amount of control necessary to enforce domestic laws for the enforcement of “sanitary laws”. UNCLOS does not offer a definition of what is included within the category of sanitary laws. However, in 1999 the U.S. claimed a contiguous zone of 24 nm from their coastal shores. In a press release at the time from Vice President Al Gore, part of the justification presented was the protection of the environment. Since the U.S. has not ratified UNCLOS, it is presumed that the basis for their claim is the underlying international custom which, as mentioned previously, continues to exist alongside the international treaty governing the law of the sea (UNCLOS). This action presents the possibility that provisions can legitimately be enacted for the protection of the environment under the contiguous zone regime. This would extend Canada’s ability to implement domestic shipping regulations for the protection of the environment from 12 nm to 24 nm. While this provision allows Canada to enforce a significant amount of its environmental legislation, the primary difficulty lies with the breadth of sea that is covered by the

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72 King at 282.
73 “Vice President Announces New Action to Help Protect and Preserve U.S. Shores and Oceans.” Press Release. Office of the Vice President. (2 September 1999), online: Clinton Administration <clinton4.nara.gov/>.
regime, as a 24 nm limit would not allow for coverage over the entire breadth of the Northwest Passage.

4.1.6. Exclusive Economic Zone. The EEZ regime under UNCLOS extends the jurisdiction of coastal states to 200 nm,\(^{75}\) more than sufficient to include the Northwest Passage. The limitation of this regime, however, is that it offers significantly less than full jurisdiction for the coastal state to implement environmental legislation. It does provide the coastal state with “sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources”\(^{76}\). The emphasis of this provision is an exclusive right to the exploitation of resources within the defined territory. Art 56 (1)(b)(iii) in combination with Art 56 (2) provides that states have jurisdiction for “the protection and preservation of the marine environment” having “due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this convention”. As mentioned previously, the basic principle that lies at the heart of the law of the sea is the principle of freedom of navigation.\(^{77}\) The “rights” of other states, as provided in Art 56(2), appear to include this freedom of the seas. Any limitation on the rights of states to freely traverse a waterway would therefore require a high threshold for justification. While the EEZ does allow for considerable breadth of scope regarding the jurisdiction of states, its effectiveness in relation to the Canadian Arctic is questionable. Without the power to regulate the passage of ships within the

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\(^{75}\) UNCLOS, Part V

\(^{76}\) UNCLOS, Art 56 (1)(a)

\(^{77}\) Sherrin, Jeffrey, “International Law and Canadian Arctic Pollution Control.” (1973-1974) 38 Alb L Rev 921 at 924.
Northwest Passage, Canada’s ability to enforce environmental safety regulations would be limited.

This has not stopped the Canadian government from enacting legislation attempting to provide for environmental protection for the breadth of the 200 nm limit of the EEZ. Prior to the adoption of the current version of UNCLOS, Canada introduced the *Arctic Waters Pollution Prevention Act* (AWPPA) intended to extend jurisdiction for environmental protection in the north. In this *Act*, Canada unilaterally extended its jurisdiction far beyond the allowable international legal regime of the time. Canada’s attempt to extend domestic jurisdiction was rejected by a number of states. This rejection is evidence against the legislation contributing to a custom expanding the ambit of domestic environmental jurisdiction by Arctic states. In this manner, the substantive measures of the AWPPA do not lend themselves to a greater level of protection than that generally available to coastal states within the governing international regime.

Within the EEZ regime, Art 73 allows for a substantial degree of enforcement for coastal states. Such measures include:

in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, tak[ing] such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.

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79 Clark at 91.
80 Ibid. at 85.
81 UNCLOS, Art 73
The application of this Article is limited however to the “exploring and exploiting, conserving and managing”\(^{82}\) of the natural resources over which it has sovereignty.\(^{83}\) While appearing to allow latitude in relation to the introduction of domestic measures for the protection of natural resources from shipping, there are limitations between the protection of resources and the regulation of shipping that block the Canadian government from introducing a comprehensive shipping regime. For example, it could be argued that regulations limiting the level of pollution expended from vessels traversing the area may be included. It is not clear however, that specific regulations governing the composition of the crew in order to encourage safe passage would be justified under Art 73, even though this is an important element of a comprehensive environmental regime for Arctic shipping. The remaining articles of Part V reflect that conservation is primarily concerned with the protection and limiting of the exploitation of living resources, rather than further elements that would comprise important aspects of a shipping regime.\(^{84}\)

4.1.7. **UNCLOS Art 234: The “Arctic Exception”**. The Arctic exception of UNCLOS Art 234 was negotiated specifically with regions such as the Northwest Passage in mind.\(^{85}\) The relevant text states that:

> 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

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\(^{82}\) UNCLOS, Art 56

\(^{83}\) UNCLOS, Art 56

\(^{84}\) See, e.g., UNCLOS Arts 61, 62, 63, 64.

\(^{85}\) See, e.g., McRae at 102.
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.\textsuperscript{86}

The Arctic exception grants a substantial level of jurisdiction to coastal states for the protection of regions meeting the requisite criteria. The Northwest Passage meets the requirements of Art 234 because of “the presence of ice covering...for most of the year creat[ing] obstructions or exceptional hazards to navigation”. As discussed previously, the EEZ extends 200 nm from the baselines,\textsuperscript{87} meaning that the Northwest Passage, having a breadth less than this distance from each of two islands even at its widest point, would be included. Art 234 therefore authorizes Canada to adopt legislation aimed at the protection of the Arctic marine environment. Also relevant to the previous discussion of the EEZ, this Article explicitly mentions that Arctic states are granted the ability to introduce regulations aimed at the protection of the environment from marine pollution. Were it the case that the EEZ regime was intended to provide a substantive level of jurisdiction for coastal states to protect against marine pollution, there would be no justification for the introduction of Art 234, specifically granting these further powers for the protection of the environment.

Art 234 indicates that coastal states can adopt legislation for the “prevention, reduction and control of marine pollution”. Arctic shipping is a potentially major source of marine pollution in the Northwest Passage. It follows that Art 234 grants the Canadian government the ability to regulate shipping in the Arctic region, comprising part of its EEZ, through domestic legislation. The primary aspects of

\textsuperscript{86} UNCLOS, Art 234
\textsuperscript{87} UNCLOS, Art 57
Arctic shipping concerning the protection of the marine environment include standards for the construction of ships, regulations regarding precautions for navigation through the Passage, and the registration of ships within the waters of the Passage. Since the aim is for the “prevention, reduction and control” of pollution, Art 234 appears to grant a broader range of powers to the coastal state than otherwise available under the EEZ regime as discussed above, which focuses primarily on the conservation of natural resources.

However, Art 234 also includes two important restrictions. The first is that the risk to be addressed must have the potential for the “irreversible disturbance of the ecological balance”. The second is that protective measures must have their basis in the “best available scientific evidence”. Numerous studies highlight the particular sensitivity of the Arctic environment to oil spills.88 There are several reasons for this sensitivity. Two important factors include the remoteness of the region, as well as the particular fragility of the Arctic environment. For example, oil deposited in the Arctic decomposes at a rate significantly lower than in more southerly waters.89 Further, organisms that live in the Arctic have lower reproductive rates than in other locations, meaning that the recovery period after a spill is longer in duration.90 The ongoing difficulties relating to the Exxon Valdez spill of 1989 demonstrates the harm that the Arctic would face resulting from oil entering the Arctic environment.91 Therefore, Canadian measures aimed at

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88 See, e.g., AMSA Report.
89 King at 272.
90 King at 272.
preventing permanent damage to the Arctic region would be valid under Art 234, representing both the potential for an irreversible disturbance along with the support of strong scientific evidence.

4.1.8. Settlement of Disputes. UNCLOS includes provisions for the adjudication of disagreements as they arise under the Convention. UNCLOS Part XV requires that parties settle disputes peacefully, ideally by a means chosen between them.\textsuperscript{92} If such an agreement cannot be reached, then the provisions in Part XV apply.\textsuperscript{93} With the signing of the UNCLOS, state parties are required to choose a means to resolve disputes. The options include the International Tribunal for the Law of the Sea, the International Court of Justice, or a special tribunal in accordance with UNCLOS Annex VII or VIII.\textsuperscript{94} If the contending states have chosen the same means, they are then bound to submit the dispute to that tribunal for adjudication.\textsuperscript{95} If not, then the parties must submit the issue to a tribunal comprised under Annex VII, unless they agree to an alternate solution.\textsuperscript{96} Jurisdiction of the tribunal extends to all matters relating to the application of UNCLOS.\textsuperscript{97} The decisions of the tribunal are binding on the parties involved.\textsuperscript{98} These adjudication provisions are an important element of the UNCLOS regime, as they ensure state compliance. The extension of the tribunal’s jurisdiction over any matter concerning UNCLOS means that, while there is no overarching body to ensure the compliance of state parties, consistent application of its regulations are applied to disputes between parties.

\textsuperscript{92} UNCLOS, Art 280
\textsuperscript{93} UNCLOS, Art 281
\textsuperscript{94} UNCLOS, Art 287(1)
\textsuperscript{95} UNCLOS, Art 287(4)
\textsuperscript{96} UNCLOS, Art 287(5)
\textsuperscript{97} UNCLOS, Art 288
\textsuperscript{98} UNCLOS, Art 296
4.2. Evaluation. WWF completed an important study regarding environmental regulation in the Arctic entitled *International Governance and Regulation of the Marine Arctic: Overview and Gap Analysis* (Gap Analysis). This study, undertaken by Koivurova and Molenaar, argues that the international regime for protection of the Arctic marine environment represents only a minimal level of protection.\(^9^9\) While this statement may be accurate as the law currently stands, later sections of this thesis will argue that the international regime is in fact moving toward a more comprehensive level of protection for the Arctic environment. With regard to the UNCLOS regime, the WWF Gap Analysis presents two important criticisms regarding its limitations.

A major limitation identified by WWF is the lack of an international organization to oversee the various activities related to UNCLOS.\(^1^0^0\) This criticism, as will be discussed later, applies as well to both the International Maritime Organization and Arctic Council regimes. WWF argues that an overarching governing body is necessary in order to ensure the harmonization and effective implementation of the UNCLOS regime. WWF claims that regulation under UNCLOS currently takes place in a piecemeal manner. This criticism appears, however, to minimize the effect of the Part XV dispute resolution mechanism. Substantive grounds for complaint against other states can be addressed under Part XV, which has the potential to contribute significantly to the harmonization of UNCLOS measures. The limitation of Part XV is that the coordination of policies amongst state


\(^1^0^0\) Koivurova and Molenaar at 6.
parties is only addressed when a disagreement arises. The introduction of the Part XV dispute resolution mechanism represents an important step toward ensuring adequate implementation of UNCLOS regulations. The chosen tribunal can arrive at binding decisions that contribute to a harmonized application of UNCLOS regulations. As will be discussed later, however, the Part XV mechanism can only be relied upon with regard to parties that are already party to the UNCLOS agreement.

The second limitation that WWF cites in relation to the UNCLOS regime is the lack of participation of the US. While much of UNCLOS is a codification of international law of the sea, and therefore continues to be binding on the US, there are two important elements that do not comprise part of customary law. The first element, and of particular relevance to the Northwest Passage shipping regime, is the Art 234 “Arctic exception”. As discussed previously, this provision allows the coastal state greater jurisdiction for environmental protection. The Arctic exception was an innovation of UNCLOS rather than a codification of existing customary law. Therefore, the failure of the US to ratify UNCLOS limits its effectiveness to a considerable extent. For example, the non-acceptance of exclusive Canadian jurisdiction in the Archipelago could lead to dispute in cases of conflicting legal standards regarding ships entering the waters of the Northwest Passage. The manner in which such disputes are dealt with provides the second element, namely the “dispute settlement mechanism” of Part XV, which is also not part of customary law.

101 UNCLOS, Art 296(1)
102 Koivurova and Molenaar at 5.
103 Clark at 31.
law. Part XV details the process regarding where and how any disputes involving the law of the sea are settled. The US non-participation in the UNCLOS regime is of particular importance in this regard, as it is not bound to follow the procedures set forth for the settlement of disputes under UNCLOS. According to the WWF Analysis, this dispute settlement procedure may be the key component of the UNCLOS regime.\textsuperscript{104} US non-participation in the UNCLOS regime is therefore a hindrance to the effective implementation and harmonization of the law of the sea measures.

This criticism identifies an important limitation of the UNCLOS regime. The US is not only potentially a major navigator of the Northwest Passage, but also one of the eight Arctic states whose interests are directly affected by developments in the region. Participation by the US would represent an important step towards the harmonization of standards across the region, reducing the risk of disputes. Also, in cases where disputes arise, the US ratification of UNCLOS would increase the utility of the dispute resolution mechanism. Positive recent developments suggest that the US may be moving towards ratifying the Treaty in the near future, which would represent an important development in the strengthening of the UNCLOS regime.\textsuperscript{105}

As discussed above, the Art 234 Arctic exception provides significant jurisdiction for coastal states to enact provisions regarding environmental protection. It is not universally recognized, however, that this jurisdiction is sufficient. For example, King\textsuperscript{106} focuses on the limiting elements of Art 234, including the fact that “laws and regulations shall have due regard to navigation”

\textsuperscript{104} Koivurova and Molenaar at 44.
\textsuperscript{106} King at 300.
and that they must be applied in a “non-discriminatory”\textsuperscript{107} fashion. As discussed above, however, the Art 234 provisions present the strongest jurisdiction available under UNCLOS for Canada to enact legislation for the protection of the environment in the Northwest Passage. The major limitation of the Art 234 provision is not with the breadth of regulations available, but rather with the duration of its applicability. Specifically, a difficulty arises when the ice-cover in the Northwest Passage no longer meets the requirements for this exception.\textsuperscript{108} According to the \textit{Arctic Marine Shipping Assessment} (AMSA) Report (2009), no research conducted thus far has predicted that winter ice will completely disappear during the 21\textsuperscript{st} Century.\textsuperscript{109} However, the AMSA Report suggests there could be an ice-free Canadian Arctic during the summer months as soon as, and possibly even prior to, the year 2040.\textsuperscript{110}

The wording of Art 234 is reasonably clear with regard to when the exception applies, namely when the passage is obstructed or exceptionally hazardous for “most” of the year.\textsuperscript{111} While Art 234 does not provide a test regulating the percentage of the year that the region must be covered by ice, the major changes anticipated by the AMSA Report suggest that the ice will not have sufficient impact on shipping for the Arctic exception to apply indefinitely.\textsuperscript{112} This suggests that the application of the Arctic exception to the Canadian Arctic Archipelago is limited in duration. There is a substantial problem in relying on this provision as the basis of a shipping regime. The environmental protection sought through Art 234 is a

\textsuperscript{107} UNCLOS, Art 234
\textsuperscript{109} AMSA Report at 25.
\textsuperscript{110} Ibid. at 25.
\textsuperscript{111} UNCLOS, Art 234
\textsuperscript{112} AMSA Report at 25.
response to increased activity in the area. Since shipping through the Northwest Passage will increase with the appearance of ice-free periods, the exception will cease to apply when it is most required, namely after the disappearance of year-round ice. Given the limited duration of the Art 234 Arctic exception, it is necessary to evaluate other sources of international law as they may apply to the region.

A limitation to the UNCLOS regime is that it applies solely to pollution from ships that are within the EEZ. This represents only one source of pollution in the Arctic Archipelago. Unfortunately, pollution does not recognize boundaries and oil spills and other pollution that take place outside the EEZ can to be deleterious to the environment within it. Because of the specific makeup of the Arctic marine environment, it acts as a “reservoir” for pollutants from elsewhere. With regard to the majority of pollution from external sources, there is little that Arctic pollution prevention can achieve. There are few exceptions to this rule, such as Art 218 which states that,

When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

This exception to the general prohibition against enforcement of pollution which originated outside the coastal states jurisdiction is limited in effect. It depends on

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113 E.g., UNCLOS, Art 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...” [emphasis added]).


115 UNCLOS, Art 218 (1)
the voluntary submission of the vessel to the authority of the coastal state through entering a port or off-shore State terminal. In effect, this exception is of limited use, since it only applies to these particular circumstances. It does not apply to the numerous circumstances in which vessels do not take such voluntary actions. Further, it would not appear to be applicable to those ships that pollute outside of the prescribed area, and then continue to traverse it afterward. This is a significant limitation of the UNCLOS regime, because it fails to apply to a major potential polluter. The regime could be strengthened through an effects-based approach, having vessels be responsible for damage directly caused, regardless of origin. This solution would be consistent with the goals of the regime, which is the protection of waters from both voluntary and involuntary pollution. The current system also has the effect that polluters in international waters may not be held to account for the damage they have caused, since these waters would not fall under the jurisdiction of any particular member state. By allowing states whose marine environments have been damaged by the pollution to enforce domestic regulations would contribute to closing this gap in the international governance system for the Arctic.

With regard to regulation within the EEZ regime, some commentators have argued for greater prescriptive jurisdiction for coastal states to protect the environment from “vessel-source” pollution in the EEZ.¹¹⁶ In support of this argument, Mooradian observes a trend in the law of the sea beginning pre-World War II from the regulation of vessel-source pollution by flag-states to regulation by

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¹¹⁶ Mooradian at 771.
coastal states. In the *Fisheries Jurisdiction* (United Kingdom v Iceland) Case, the ICJ stated that "the former laissez-faire treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of other States and the needs of conservation for the benefit of all". Since this movement toward coastal state regulation is not the result of treaty law, it presumably falls under the category of customary international law.

However, not all states that have made a claim for an EEZ have also claimed jurisdiction for the regulation of the environment. Only 64 of the 102 States that have claimed an EEZ have used it as the basis for environmental protection, and further, only 25 have claimed exclusive jurisdiction for such protection. As previously discussed, customary international law emphasizes the importance of state practice and the acceptance of such actions by other states. For this reason, it appears an international custom has not yet arisen. However, Mooradian claims that these practices can provide the basis of a custom in international law whereby coastal states can regulate vessel-source pollution within the EEZ, despite a lack of express acceptance under UNCLOS. Further, Mooradian argues that there is an increasing movement of states toward utilizing the EEZ. Because of this, Mooradian believes coastal states will move toward further protecting their economic interests through domestic legislation. The manner in which other states respond to the increased jurisdiction of coastal states will determine whether strong

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117 Mooradian at 795.
119 Mooradian at 797.
120 Ibid. at 797.
121 Ibid. at 798.
122 Ibid. at 802.
environmental protection legislation can comprise part of the EEZ regime under customary international law.

Mooradian makes a strong argument in favour of an emerging custom in this area. There does appear to be a trend amongst coastal states toward greater environmental regulation in the EEZ. However, his argument remains at the level of speculation since the ultimate determination of whether a custom arises depends on the acceptance or non-acceptance of such actions by other states. Currently, the statistics cited above indicate insufficient state practice for the creation of a custom for exclusive coastal state jurisdiction for the protection of the environment from vessel source pollution. While it is interesting to speculate on the future state of the law in this area, such speculation provides an unsatisfactory basis on which to base an environmental protection regime.

5. International Maritime Organization Guidelines

5.1. Substantive Measures. The International Maritime Organization (IMO) introduced an important international ‘soft law’ regime regarding the regulation of shipping through the Arctic, entitled Guidelines for Ships Operating in Arctic Ice-covered Waters (Guidelines). This section highlights important measures included in the Guidelines as they relate to shipping through the Northwest Passage in the areas of ship construction, crew composition, and preparedness for Arctic conditions. Shortcomings of the regime include the lack of a clear standard for

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123 Jensen at 8.
navigator training, insufficient icing provisions and a two-tier regime for different classes of Arctic vessels. The status of this instrument is different from that of UNCLOS, because it consists of recommendations without legally binding effect. Despite this fact, its standards represent a positive step in the creation of a region-specific shipping regime addressing the particular challenges present in the Arctic region.

The IMO has previously implemented a binding convention applicable to all shipping regardless of region, called the *International Convention for the Safety of Life at Sea* (SOLAS). The Introduction to the *Guidelines* states that the measures included therein represent recognition of the unique risks posed by the Arctic environment. On this basis, the requirements of the *Guidelines* go beyond those of the SOLAS Convention.

Numerous provisions in the *Guidelines* address the construction of Arctic-going vessels. A high standard of design and material quality are required to reduce the risk of pollution to the Arctic environment. Specific measures set out in the *Guidelines* regulating the construction of ships include: the strengthening of the hull and appendages; a prohibition on storing pollutants directly against the outer shell of the vessel; double bottoms to reduce the risk of pollutants entering the environment in the event of an accident; surveys of the vessel should take into

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124 Jensen at 6.
126 Ibid., Introduction.
127 Ibid., G-2.
128 Ibid., 2.1.2.
129 Ibid., 3.3.1.
130 Ibid., 3.3.2.
account part of the vessel more susceptible to the “accelerated degradation” caused by the Arctic environment;\textsuperscript{131} greater attention paid to the stability of the vessel under harsh conditions;\textsuperscript{132} and strengthened directional control to deal with conditions caused by lower temperatures.\textsuperscript{133} These requirements address the particular difficulties associated with Arctic travel. The presence of almost year-round ice in the region, much of which is submerged and not readily visible, increases the likelihood that an accident will take place. In recognition of this danger, the regulations focus on reducing both the likelihood of damage to the vessel during travel, as well as the potential environmental harm in case of damage. As mentioned above, these requirements complement the regulations already in place under the SOLAS convention. The combination of these two conventions results in a strong minimum standard for vessels traversing the Northwest Passage.

Regarding emergency situations, the \textit{Guidelines} require ships to be equipped to provide limited assistance to other ships in need.\textsuperscript{134} This regulation addresses the isolation of the Arctic region. If vessels do not have this capacity, a considerable amount of time could elapse until another vessel is able to assist, creating a greater potential for both human injury and pollutant leakage. Apart from being able to assist others, the \textit{Guidelines} require vessels to have the capacity of receiving assistance. This includes having the capability of being towed by other ships.\textsuperscript{135} This provision addresses the same issue from the position of the vessel requiring

\textsuperscript{131}\textit{IMO Guidelines}, 2.1.4.
\textsuperscript{132}\textit{Ibid.}, 3.1.
\textsuperscript{133}\textit{Ibid.}, 5.1.
\textsuperscript{134}\textit{Ibid.}, 6.1.
\textsuperscript{135}\textit{Ibid.}, 6.4.1.
assistance. It is in the best interests of a vessel operator to have such equipment available in the event of an accident to reduce the risk of injury.

There are a number of regulations regarding the composition of the crew on an Arctic ice-going vessel. Importantly, it is required that a certified ice navigator be present on every ship. Such navigators must have documentary evidence that they have completed an ice navigation program.\(^\text{136}\) A limitation of this requirement is that the content of such a program is not stipulated anywhere in the *Guidelines*. Regardless, the *Guidelines* establish some minimum requirements for the program. As for the training of the crew, the *Guidelines* require that crewmembers be provided with appropriate training to comply with environmental protection measures.\(^\text{137}\) The appropriate measures are discussed in the following section. The *Guidelines*’ provisions are complementary to the general shipping regime as regulated through the *International Convention for the Prevention of Pollution From Ships (MARPOL)*,\(^\text{138}\) including measures to be taken in response to an accident and dealing with icing in relation to vital navigational equipment. The *Guidelines* require that appropriate equipment and materials are made available for reparations and damage control when necessary.\(^\text{139}\)

The *Guidelines* include further recommendations regarding standard operating procedure in Arctic waters. Part D of the *Guidelines* provides important regulations with regard to the protection of the environment from risks inherent in Arctic shipping. Ships are required to carry an operating manual where procedures

\(^{136}\text{IMO Guidelines, 14.2.}\)
\(^{137}\text{Ibid., 6.1.3.}\)
\(^{138}\text{Jensen at 23.}\)
\(^{139}\text{IMO Guidelines, 6.2.1.}\)
for the protection of the environment under normal conditions are listed. The
Guidelines also provide that procedures under emergency conditions should be
available in the Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with
MARPOL. This fact ensures that every ship going through the Northwest Passage
is equipped with the appropriate information to address environmental issues
under different scenarios. As mentioned above, crewmembers are required to be
familiar with emergency procedures as preparation for an Arctic-going voyage. It is
envisioned that the combination of training and available manuals provides the
crew with sufficient resources to address the different scenarios that may be met in
Arctic waters.

5.2. Evaluation. As the above discussion indicates, the Guidelines provide
important recommendations regarding the construction of ships, crew training, and
emergency procedures relevant to Arctic conditions. These recommendations
represent an important addition to the international shipping regime governing the
particular conditions present in the Arctic. According to Jensen, however, there are
substantial shortcomings to the Guidelines, which are discussed in the following
section.

First, there is no standard qualification required of navigators from all
states. The lack of such a standard speaks to the issues of both consistency and
effectiveness. Although the Guidelines recommend that ice-navigators have some
qualification, the lack of specificity regarding what should be included in the

\footnotesize
\begin{itemize}
  \item[140] IMO Guidelines, 16.1.2.
  \item[141] Jensen at 15.
  \item[142] IMO Guidelines, 14.2.
\end{itemize}
qualification course creates the potential for varying content of qualifications. This is an important criticism. The development of a qualification system regarding the ability of an individual to navigate the waters of the Arctic supports the safety of vessels. To this end, it emphasizes the skills necessary for successful navigation in Arctic waters. However, the lack of substantive information regarding the requirement is a significant detriment to its effectiveness. Without increased guidance, some qualification programs could prove to be inadequate to supply the navigator with the necessary skills. A strengthened training program would explicitly set out the target skills that an individual navigator should have acquired by the end of the program, as well as the means by which these can best be achieved.

Second, there are insufficient regulations regarding “icing”, which occurs as a result of spray from Arctic waters.\textsuperscript{143} Because of the frigid temperature of these waters, spray can have a damaging effect on vital equipment, such as those used for navigation. The \textit{Guidelines} do include some regulation with regard to the issue of icing, however. For example, provisions such as 10.3.3.3 focus on protecting susceptible equipment from icing. There are also provisions regarding the use of icing removal equipment.\textsuperscript{144} Given the potentially damaging effect that icing can have on a vessel's ability to travel through the Arctic, it is important that the regulations are capable of addressing this issue. Recall, however, that the IMO \textit{Guidelines} are recommendations, and therefore non-binding. The measures included therein represent minimum standards for safe passage. Individual coastal states can

\textsuperscript{143} Jensen at 16.
\textsuperscript{144} IMO Guidelines, 11.5.3.
choose to adopt more rigorous regulations for icing, should they believe it to be necessary.

Third, there is a two-tier regime for Arctic-going ships, namely Polar Class and Non-Polar Class vessels. The *Guidelines* appear to have stricter requirements for vessels that fall under the category of “Polar Class”, because they are also required to meet the standards in the *Guidelines*, as well as “applicable national standards”¹⁴⁶. This reflects the fact that standards in this area have not been satisfactorily harmonized.¹⁴⁷ It would be desirable to apply a consistent set of standards for all ships passing through the Arctic. A more successful manner by which to deal with this issue would be to create a single consistent standard that could apply to all ships. It is not clear why there should be inconsistent standards for ships in the Arctic, since they are facing the same conditions. In fact, any difference should include higher standards for non-Polar class ships, since they do not meet the international criteria of Polar Class vessels.

The fourth criticism is that the effectiveness of the *Guidelines* may be limited by their non-binding nature.¹⁴⁸ While it may be in the best interests of certain parties involved to ensure the safety of their vessels, some parties will presumably choose not to comply with the provisions if the cost proves to be prohibitive. Jensen provides an analysis of the arguments for and against changing the status of the *Guidelines* from recommendatory to binding. His arguments for the mandatory regime are presented first.

¹⁴⁵ Jensen at 16.
¹⁴⁶ *Guidelines*, 1.1.4.
¹⁴⁷ Jensen at 16.
¹⁴⁸ Ibid., at 17.
The first argument in favour of a mandatory regime is that, since the Guidelines are merely recommendations, there can be significant differences in the manner in which they are implemented domestically amongst Arctic states, if in fact they are implemented at all.\textsuperscript{149} This creates a challenge for ships navigating multiple jurisdictions within a single voyage, namely that it may be difficult to comply with the various measures of these states. The second is that the IMO Guidelines are intended to create a set of regulations that contributes to the safety of vessels navigating through the challenging terrain of the ice-covered waters.\textsuperscript{150} If these standards are to ensure safe passage, companies may, notwithstanding excessive expense, be willing to comply for the safety of their own cargo. The threat of legal consequences may contribute to companies choosing to implement the measures. Further, the limited success of the Guidelines in their present form is indicated by the fact that no Arctic nation has yet implemented the measures domestically through mandatory legislation.\textsuperscript{151} This lack of implementation also leads to the difficulty of assessing the adequacy of the Guidelines for achieving in practice the level of protection for the environment that is envisioned.

Jensen presents several arguments in favour of maintaining the Guidelines at the level of recommendations. The first is that the recommendatory nature of the Guidelines makes it possible to have more states to sign the agreement.\textsuperscript{152} This is a general point that can be made with regard to any internationally negotiated agreement. The ratification of an international treaty limits the freedom of domestic

\textsuperscript{149} Jensen at 17.
\textsuperscript{150} IMO Guidelines, P-1.1.
\textsuperscript{151} Jensen at 17.
\textsuperscript{152} Jensen at 17.
legislators to legislate in the area. Following the assumption of obligations in the international agreement, failure to abide by relevant principles gives rise to international legal consequences. However, there does not appear to be anything in the IMO Guidelines that is more contentious than other agreements such as UNCLOS, which has been signed and ratified by all Arctic states with the exception of the US.\textsuperscript{153} Further, despite their non-binding nature, negotiations surrounding the Guidelines have been no less contentious as treaty negotiations.\textsuperscript{154}

A second argument against making the Guidelines mandatory is that given the remoteness of the Arctic, the effectiveness of the measures depends to a large extent on the cooperation of the many actors involved, namely states, shipowners, classification societies and ship operators.\textsuperscript{155} To a certain extent, it will always be challenging to enforce the measures, given the vastness of the area. The effectiveness of the measures will therefore depend to a certain extent on the voluntary compliance of the parties involved.

The key to evaluating the IMO Guidelines is to view them within the context of the overall regime for environmental protection in the Arctic. This thesis focuses on three regimes as essential to international environmental protection in the Arctic, namely UNCLOS, the Arctic Council and the IMO Guidelines. UNCLOS presents legally binding regulations with regard to the various Arctic jurisdictions. While the UNCLOS regulations are important in relation to the international environmental

\textsuperscript{154} Jensen at 17.
\textsuperscript{155} Ibid. at 17.
protection regime for the marine environment, they are also general in nature. The
IMO Guidelines represent more specific regulations with regard to Arctic shipping.
Because of the specific nature of these regulations, there are regional differences as
to whether state parties believe such measures to be adequate.\(^{156}\) Given these
differences, the IMO is justified in maintaining the Guidelines at the level of
recommendatory. The Guidelines are an attempt to provide a minimum level of
measures to ensure safe voyage in the Arctic waters. For this reason, “Member
Governments are invited to bring the annexed Guidelines to the attention of
shipowners, ship designers, shipbuilders, ship repairers, equipment manufactures
and installers and all other parties concerned with the operation of ships in Arctic
ice-covered waters”\(^{157}\). It is important to ensure that more states sign on to the
Guidelines, thus making a commitment toward introducing measures for safe Arctic
voyages. The coordination of shipping policies among Arctic states can be addressed
at the level of the Arctic Council, as will be discussed in a later section.

The WWF Gap Analysis provides two further important criticisms with
regard to content of the IMO Guidelines. First, the Guidelines do not offer a set of
specific rules applicable to Arctic waters regulating, for example, discharge or
emissions in the Arctic.\(^{158}\) Evident from the foregoing discussion is that the majority
of the provisions focus on training, as well as on the composition of the crew and
vessel. While these are integral elements of the environmental protection regime,
setting standards for emissions is also an important element in fortifying the

\(^{156}\) Stokke at 406.
\(^{157}\) IMO Guidelines, Introduction, 2.
\(^{158}\) Koivurova and Molenaar at 7.
provisions. With regard to the Northwest Passage, the Canadian government is able to implement measures for the protection of the marine environment from discharge emissions under Art 234. However, as discussed above, the Art 234 exception will not continue to apply indefinitely to the region. Since the other regimes (e.g. the EEZ and territorial seas) do not afford sufficient jurisdiction to coastal states for the protection of the marine environment, it is essential that the international regime provide such regulations. This lack of specific rules regulating emission levels is a significant limitation of the IMO Guidelines.

Second, the IMO is incapable of ensuring the compliance of states and ship operators with the relevant measures.\footnote{Koivurova and Molenaar at 7.} Since the Guidelines are recommendatory, it is unnecessary to ensure compliance of parties with the measures. Because of this status, the issue of compliance would be more suited to the coastal state. As will be discussed in the following section, the Arctic Council can take a leadership role in the implementation of the IMO measures amongst Arctic states, thereby ensuring a high level of compliance with the minimum level of protection for shipping as set out in the IMO Guidelines.

6. The Arctic Council

6.1. Substantive Measures. The Arctic Council was created in 1996 as a high-level diplomatic forum within which the eight Arctic nations join together to promote coordination and cooperation on issues affecting the Arctic region and its
inhabitants. Beyond this role, the Council introduced several working groups that focus on aspects of environmental regulation. Their activities deal primarily with the observation of current conditions and the presentation of recommendations for the enhancement of environmental protection measures. These working groups are also encouraged to promote cooperation with other international organizations working in the area of Arctic environmental regulation, such as the IMO discussed previously.

The Declaration on the Establishment of the Arctic Council identified two pillars that comprise the primary focus of the Arctic Council, namely sustainable development in the region and the protection of the environment. On this basis, protection of the Arctic environment through shipping regulation fits within the Council’s mandate. The existence of this forum is an important element in the harmonization of regulations for the region and presents an opportunity for Arctic states to discuss common issues, as well as the sharing of current research.

Beyond providing a forum for cooperation between Arctic states, the Arctic Council’s role extends to the facilitation of Arctic environmental programs. Oversight of these programs is undertaken by the following working groups: the Arctic Monitoring and Assessment Program (AMAP), the Conservation of the Arctic Flora and Fauna (CAFF), the Protection of the Arctic Marine Environment (PAME) and the Emergency Prevention, Preparedness and Response (EPPR) working

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161 Ibid., 1(a).
These working groups are primarily responsible for observing developments in their respective areas, which are then reported to the Council. A review of the Council’s working groups undertaken in 1998 found that the reports they had produced were “quite general”, “lack[ed] specificity” and were “largely descriptive”. As will be outlined below however, numerous reports have been produced since that time, which represent a more substantive contribution to the understanding of Arctic environmental protection.

The *Arctic Environmental Protection Strategy* (AEPS) was adopted in 1989, prior to the establishment of the Arctic Council, as a means by which to promote the protection of the Arctic environment through the collaboration of Arctic states. Although the AEPS was a first step in collaboration among Arctic states regarding the environment, the aspirations were far reaching, including the “identifi[cation], reduc[tion], and, as a final goal, eliminat[iion of] pollution” in the Arctic region. The complete elimination of pollution in the Arctic appears to be unrealistic, given the predictions regarding future human activity in the area. Several reports on the future of Arctic shipping have focused on the increased likelihood of pollution through accidents and oil spills. In fact, some reports have claimed that the melting of Arctic ice may make shipping more treacherous, as it will be more

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162 Declaration on the Establishment of the Arctic Council, 1(h).
164 Ibid.
166 Ibid. at 9 (2.2.1.v).
167 Dresser at 508.
difficult for navigators to identify where the dangers lie.\textsuperscript{168} Regardless, this is a clear statement that the Arctic nations intend to take positive steps toward the protection of the environment through AEPS.

AEPS included an evaluation of the international regimes for the protection of the environment. This evaluation focused on six specific pollution issues, namely “persistent organic contaminants, oil, heavy metals, noise, radioactivity, and acidification”\textsuperscript{169}. The AEPS agreement addressed these issues through the implementation of AMAP, PAME, EPPR and CAFF.\textsuperscript{170} Shipping-related issues are justified within the scope of the Arctic Council’s mandate, since they fall under the category of environmental protection. A number of initiatives are of importance to this role. The following sections discuss the role of the various programs of the Arctic Council and how they relate to the shipping regime. Further, the strengths and weaknesses of these programs as they contribute to the Arctic Shipping regulatory regime are evaluated.

The \textit{Arctic Monitoring and Assessment Program} (AMAP) is a scientific program with two important roles regarding the Arctic Shipping regime.\textsuperscript{171} First, it contributes to the implementation of the AEPS by monitoring the conditions of the Northwest Passage and other Arctic regions. In so doing, AMAP contributes to identifying the various difficulties to be considered by vessels traversing the area.


\textsuperscript{169} Arctic Environmental Protection Strategy at 12 (3).

\textsuperscript{170} Ibid. at 30-39.

\textsuperscript{171} “Arctic Monitoring and Assessment Programme. Work plan for 2009-2011 and tentative list of deliverables” (2009), online: The Arctic Council <\texttt{www.arctic-council.org}> at 2.
Second, information compiled by AMAP contributes to particular issues and challenges that need to be addressed by an effective Arctic shipping policy.

Koivurova and Vanderzwaag identify the central role that AMAP plays in the Arctic regime. In opposition to the legal regime governing the Antarctic, AMAP identifies environmental problems at the outset to form the basis of protection measures. This role represents an important recognition on the part of the Arctic Council that regulation must be created to address the specific problems that are likely faced in the future of the region. In considering the changing circumstances of the Arctic environment, the Arctic Council is better positioned to make recommendations to Arctic states regarding adequate protection measures. This aspect of the Council’s function also reflects an appreciation of the fragility of the Arctic environment and its vulnerability to pollutants, such that it is necessary to continue to incorporate new information to ensure that the protective measures taken are consistent with relevant research.

AMAP takes a collaborative approach to observation in the region. It utilizes information from its own program, as well as incorporating the traditional knowledge of local inhabitants, and observations from other national and international monitoring programs. Through collaboration, AMAP has a broader data set on which to inform the Arctic Council with the most up to date and complete information regarding the environmental conditions in the Arctic. This enables the Arctic Council to determine recommendations based on a more complete set of data.

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172 Koivurova at 138.
173 Koivurova at 139.
The activities of the *Conservation of Arctic Flora and Fauna* (CAFF) focus on the conservation of the living resources of the Arctic.\textsuperscript{174} Its current work plan is based on the available evidence as reported in the *Arctic Climate and Impact Assessment* (ACIA) and CAFF’s *Flora & Fauna: Status and Conservation* report.\textsuperscript{175} CAFF contributes to the protection of the Arctic environment by working on the harmonization of the environmental policies of the Arctic States in light of their impact on the living environment in the area. Their primary activities include assessments of the current state of Arctic wildlife disseminated through reports, continued monitoring of wildlife species, and developing recommendations for policy steps to be taken by Arctic states for the protection of wildlife.\textsuperscript{176}

In 2009, the Arctic Council outlined the *Protection of the Arctic Marine Environment* (PAME)’s future mandate in Tromso, Norway. Amongst the important contributions that PAME has made is the *Arctic Marine Shipping Assessment* (AMSA) Report 2009.\textsuperscript{177} The AMSA Report focuses specifically on marine safety and environmental protection.\textsuperscript{178} It includes several important recommendations regarding future measures that could strengthen the shipping regime in the Arctic. The first is to improve cooperation between international organizations that are involved in Arctic shipping issues such as the IMO.\textsuperscript{179} The further coordination of the actions of these international organizations allow for the sharing of information and movement towards the implementation of a seamless approach to

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{174} *CAFF Work Plan 2009 - 2011*. CAFF International Secretariat. Akureyri, Iceland at 1.
\item \textsuperscript{175} Ibid. at 1
\item \textsuperscript{176} Ibid. at 2.
\item \textsuperscript{177} Arctic Council, *Protection of the Arctic Marine Environment Mandate* (2009), online: \url{<www.pame.is>}
\item \textsuperscript{178} *Arctic Marine Shipping Assessment 2009 Report* (2009) Arctic Council, second printing at 6.
\item \textsuperscript{179} Ibid. at 6.
\end{enumerate}
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environmental protection in the region. The second is to push for the mandatory application of international regulatory instruments such as the IMO Guidelines.\textsuperscript{180} As discussed previously, the Guidelines are currently voluntary. The third is to promote the harmonization of Arctic shipping policies throughout Arctic states.\textsuperscript{181} The harmonization of shipping policies is an important step for a number of reasons. It ensures that the highest standards of protection are guaranteed across borders and, since vessels often traverse multiple jurisdictions, harmonization also contributes to the ease of compliance. Harmonization would mean that ship operators would not be required to comply with multiple shipping regimes with differing regulations. The fourth is that further measures should be implemented in order to increase the level of safety for passenger ships in the Arctic. This would include supporting the IMO’s Enhanced Contingency Planning Guidance for Passenger Ships Operating in Areas Remote for SAR Facilities.\textsuperscript{182} A number of studies predict a significant increase in passenger ships in the Arctic.\textsuperscript{183} In order to offer sufficient protection, it is necessary to increase the level of protection offered by the international regime. Finally, since the isolation of the Arctic region creates difficulties for rescue personnel to reach those in need, the report recommends the adoption of a multi-national Arctic Search and Rescue (SAR) instrument.\textsuperscript{184} A multi-national project would ensure greater coverage for search and rescue, since states can share resources in the creation of a more comprehensive system.

\textsuperscript{180} Arctic Marine Shipping Assessment 2009 Report at 6.
\textsuperscript{181} Ibid. at 6.
\textsuperscript{182} Ibid. at 6.
\textsuperscript{183} Ibid. at 37-38.
\textsuperscript{184} Ibid. at 6.
Further to these core recommendations relating to the governance of Arctic shipping, the AMSA Report recommends that states should develop an Arctic tracking system to better regulate marine traffic through Arctic waters.\textsuperscript{185} An improved tracking system would enable the coastal state to find a vessel in crisis more quickly, thereby increasing the chance of a successful rescue and the minimization of damage associated with an accident. The AMSA Report further recommends that Arctic states improve the level of data that they both retrieve and make available to ships entering and passing through the Arctic regions. It is envisioned that more readily available information would support safer passage through the region.\textsuperscript{186} Having this information available to all ships entering the Northwest Passage is indeed an important step in reducing the risk of accident within the Arctic region, and an essential element of a comprehensive environmental protection regime.

The PAME Mandate expressly mentions the necessity of developing and implementing both national and international measures in creating an effective and comprehensive environmental shipping regime in the Arctic.\textsuperscript{187} This represents a position on the part of the Arctic Council that the current measures are inadequate to address the task. Whether this means that the actual measures themselves are the cause of this insufficiency or whether it is the fact they are not mandatory is not made explicit. The rapid rate of change in the Arctic region suggests that the

\textsuperscript{185} Arctic Marine Shipping Assessment 2009 Report at 7.
\textsuperscript{186} Ibid. at 7.
\textsuperscript{187} PAME Mandate.
shipping regime will need to be continually updated in order to meet new challenges.

Another element of the PAME Mandate is to improve cooperation with the IMO in order to develop measures addressing the potential impact of shipping through the Arctic.\textsuperscript{188} As discussed previously, the IMO Guidelines provide an important contribution to the international shipping regime governing the Arctic. The coordination of activities between the Arctic Council and the IMO could lead to a more effective implementation of such guidelines. The PAME Mandate also suggests that the IMO Guidelines are insufficient in their present form. The work of PAME and especially the publishing of the AMSA Report provide an important source of recommendations for improvements in the IMO Guidelines. By working together, these international organizations are capable of determining a set of guidelines that are effective in minimizing the risk of pollution through shipping. According to the PAME working group, the lack of international legal consequences for non-compliance included in the IMO Guidelines is a significant limitation to their effectiveness. An important element of PAME’s Mandate is thus to contribute to the implementation of the measures as mandatory provisions, thereby increasing their effectiveness.\textsuperscript{189}

Until the meeting in Inuvik in 1996, the mandate of Emergency Prevention, Preparedness and Response (EPPR) overlapped considerably with that of AMAP.\textsuperscript{190}

\textsuperscript{188} PAME Mandate.
\textsuperscript{189} PAME Mandate.
At the 1996 meeting, EPPR’s role was clarified, which included the preparation of the *Arctic Guide for Emergency Prevention, Preparedness and Response* (Arctic Guide). Relevant to the context of Arctic shipping, the mandate of the EPPR is delineated in the *Arctic Guide* to include the exchange of information amongst Arctic states regarding best practices of emergency preparedness in the transportation of oil, radiation and “other hazards” throughout the Arctic region. An effective response to an emergency involving the release of such hazards is an important element in minimizing damage.

The *Arctic Guide* sets out the essential elements of any domestic emergency response regime. Of particular import is section 4, which sets out five important points to be addressed: identification of an individual in charge of response activities; identification of key organizations and a specific determination of each of their roles; definition of each organization in relation to one another; identification of other organizations that could provide assistance when necessary; and, finally, a description of the various responsibilities of both government and industry. Given the remote nature of the region, the importance of thoroughly outlining the duties of the various parties is amplified. One major challenge when responding to any accident in the region is that of time. The susceptibility of the region to environmental degradation as the result of an accident requires that immediate action be undertaken such that the damage is minimized. For this reason, a clear

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191 Koivurova, and VanderZwaag at 145.
194 *Arctic Guide* at s 4.
delineation of the roles and responsibilities of the parties involved is an important aspect of effective regulation.

The *Arctic Guide* contains two other important features. The first is that it enumerates the various international regimes relevant to Arctic shipping and emergency response.\(^{195}\) At its core, as discussed above, the *Guide* presents minimal elements of an emergency response regime. The identification of these alternate international legal instruments reflects other sources to be consulted in the creation of a domestic regime. The second important element of the *Guide* is devoted to each Arctic state. Each section includes important contact information for vessels in distress. In relation to the identification of the various roles of the individuals involved in an emergency situation, this would be the first point of contact, from which a rescue operation could be initiated. Also included is basic information regarding current risks that have the potential to result in environment degradation, and the steps to be taken in an emergency in a particular region.\(^{196}\) This *Guide* is updated on a yearly basis to ensure that the information is up-to-date.\(^{197}\) Having an available copy on every ship is an important step towards ensuring that requisite information is available should it become necessary.

### 6.2. Evaluation

The WWF *Gap Analysis* identifies a number of areas where improvement can be made in the structure of the Arctic Council.\(^{198}\) Because of its comprehensive analysis of the Council, the five primary criticisms of the WWF will provide the structure for the following evaluation.

\(^{195}\) *Arctic Guide* at s 5.
\(^{196}\) For Canada’s information, see *Arctic Guide* at s 8.
\(^{197}\) *Arctic Guide* at s 2.
\(^{198}\) Koivurova and Molenaar at 4.
The first criticism is that the Arctic Council is incapable of creating any legally binding obligations.\textsuperscript{199} It is a forum in which the Arctic states come together to discuss common issues affecting the region. The WWF contends that, while the current operations of the Arctic Council represent an important step in the protection of the environment, the lack of legally binding obligations limits its effectiveness.\textsuperscript{200} In order to take the further step towards demonstrating a commitment to the protection of the Arctic, the WWF claims that it is necessary to create binding obligations for all parties. However, because the Arctic Council was created as a diplomatic forum in which Arctic states can discuss common issues, it does not appear that legally binding obligations would necessarily improve their effectiveness.\textsuperscript{201} Assuming that the parties discuss issues in good faith, only modest results would be gained by introducing legal consequences for failures to comply. All parties to the Arctic Council are affected by activities in the area, and therefore it is in each nation’s best interest to act consistently with their obligations. In this manner compliance is promoted on the practical basis that the Arctic Council’s existence depends on the mutual compliance of the nations involved. In fact, legally binding obligations could actually prove a hindrance to negotiations, since parties may be unwilling to negotiate in areas for fear that the creation of binding obligations would bind them in a manner that the legislature could not adapt particular actions to the state’s changing circumstances. Also, there is a possibility that the addition of a further international organization with legally binding

\textsuperscript{199} Koivurova and Molenaar at 4.
\textsuperscript{200} Koivurova and Molenaar at 39.
obligations could give rise to inconsistent obligations, thereby creating unnecessary conflict of laws.

Further, this criticism goes to the heart of the Arctic Council regime itself. The Council was created as a high-level diplomatic forum for Arctic states to cooperate on activities in the region to protect it for future generations. If the members of the Council reconceived it as an international organization that has the ability to create international legal obligations, then this would represent a significant departure from the original purpose of the Council.

Second, the Arctic Council is a project-driven rather than an operational body. It does not include a comprehensive evaluation of whether the guidelines of the Council are followed in practice. This criticism shares common features with the first, namely that it looks to the extent of state compliance. Evaluation of the rate of compliance does appear to be important to the success of the regime. The various working groups of the Council make recommendations regarding further changes to be incorporated into national regimes for the protection of the region. The recommendations do not necessarily require information about the rate of compliance, since they are based on current Arctic conditions and the present state of law in the state parties. The issue of compliance is left to the coastal state.

In addition to the second criticism, the Arctic Council has not attempted to implement a coordinated Arctic policy. Some commentators have in fact viewed the flexibility involved in the Arctic Council, as represented by the project-driven nature

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202 Corell at 1074.
203 Corell at 1073.
204 Koivurova and Molenaar at 4.
of their activities, as a virtue.\textsuperscript{205} As mentioned previously in relation to the IMO \textit{Guidelines}, the flexible nature of the Arctic Council allows for more parties to be involved than would otherwise be the case. In this manner the Arctic Council serves its stated purpose, namely as a high-level diplomatic forum in which collaboration amongst Arctic nations is possible.

WWF’s third major criticism of the Arctic Council is that it offers limited participation to interested parties.\textsuperscript{206} Participation in the Council focuses primarily on the eight Arctic nations. While commending the role that is afforded to indigenous peoples, the WWF argues that a greater role should be granted to non-Arctic states. There is the further suggestion that such a lack of participation on the part of non-Arctic states could be a violation of the obligations of Arctic states toward other states under international law.\textsuperscript{207} Given the importance that policy decisions of the Arctic nations could have on non-Arctic states travelling through the region, it is evident that some role is indeed necessary. However, since the Arctic Council as it currently stands is a diplomatic forum between Arctic nations, it is not altogether clear that non-Arctic states should have full standing. The inclusion of non-Arctic states would introduce numerous practical difficulties, such as the possibility that the limited amount of time that the Council has to meet would be dominated by issues presented by these states. While the issue of participation of non-Arctic states is an important consideration, there is the suggestion that this could detract from the overriding issues of the Arctic regime, especially in relation

\textsuperscript{205} Stokke at 408.
\textsuperscript{206} Koivurova and Molenaar at 4.
\textsuperscript{207} Koivurova and Molenaar at 4.
to the protection of the environment. Since Arctic nations would be the most directly affected by pollution, it is appropriate that they should have a larger role in determining the policy of the region. It is especially significant that aboriginal peoples are given an important role in negotiations, given that they represent the largest group that inhabits the region.

The WWF’s fourth criticism is that there is no permanent, independent secretariat.\(^{208}\) Since the Arctic Council is a diplomatic forum, this criticism lacks force. It would have increased significance, however, were the Council to create legally binding obligations. In such a situation, the independence of the secretariat would reduce the risk of bias in determining, for example, whether there is a violation of such obligations. Under the current circumstances, the necessity of an independent secretariat does not have the same sense of urgency. As a diplomatic forum, state representatives are assumed to be promoting the interests of the nation that they represent within the context of the protection of the region as a whole.

The fifth criticism is that the Arctic Council system exists in the absence of any structural funding.\(^{209}\) This is related to the previous criticism. If there were to be an independent secretariat, it would indeed be important to provide a consistent source of funding to ensure that decisions would not be biased based on the level of compensation from any one source. It is also relevant, however, to the manner in which individual projects are funded. Under the Arctic Council, countries voluntarily undertake a leadership role regarding specific projects.\(^{210}\) The challenges this raises

\(^{208}\) Koivurova and Molenaar at 5.
\(^{209}\) Koivurova and Molenaar at 5.
\(^{210}\) Stokke at 404.
are clear, in that countries may not be willing to undertake projects that go against national interests, and run the risk of overly politicizing the functioning of such projects. This is an important area where improvements could be made. However, it would be difficult to address this issue while maintaining the Arctic Council as a diplomatic forum rather than an operational body.

7. Conclusion

Recent scientific evidence has made it clear that the Arctic is undergoing a radical transformation. The significance of this trend, according to the AMSA Report cited above, is that the Northwest Passage could be navigable during the summer months within the next 20 years. This fact represents both opportunity and responsibility for Arctic nations. Opportunity will arise in the form of potential economic benefits through trade and natural resource exploitation, as well as increased cooperation with other Arctic nations. Arctic nations have a responsibility to be proactive in ensuring the protection of the peoples and the natural environment in the region. It is therefore imperative that Canada ensures the existence of an adequate environmental protection regime.

This thesis has argued that a focus on Canadian sovereignty over the Northwest Passage is both unnecessary and distracting from the urgent issues that currently face the region. Reliance on and continued commitment to the current international regime is a more effective means by which to pursue environmental protection in the Arctic. Three sources comprise the heart of the international
environmental legal regime governing the Arctic, namely UNCLOS, the IMO Guidelines and the Arctic Council.

With regard to the Northwest Passage, the UNCLOS regime deals primarily with issues regarding the jurisdiction of coastal states. There are two major strengths of the UNCLOS regime. The first is that it supports a significant jurisdiction for Arctic states, for example under the Art 234 exception. Art 234 provides Canada with significant jurisdiction to protect the environment from vessel traffic through the Northwest Passage. This exception does not, however, apply indefinitely. It appears from the wording that the exception will cease to apply to the Northwest Passage when it is no longer covered by nearly year-round ice. There is evidence, however, that coastal states are exercising a greater level of jurisdiction with regard to the environmental protection in the EEZ. Further development in this area could give rise to a greater level of jurisdiction for Canada to protect the waters of the Arctic Archipelago.

The second is that UNCLOS has been accepted by a large number of states. For this reason, it provides a strong basis on which Canada can pursue environmental protection for the Northwest Passage. An important exception to this potential is the lack of participation by the US. This is particularly significant due to the status of the US as both an Arctic state and potential major user of the Passage. Recent evidence suggests that the US is moving towards ratifying the measures in UNCLOS, which would further strengthen Canada’s ability to enforce environmental jurisdiction in the region.
The IMO *Guidelines* provide more specific regulations with regard to the specifications of vessels passing through Arctic. These *Guidelines* provide minimum requirements that the IMO believes Arctic coastal states should implement in order to provide for the safety of the marine environment. However, there are shortcomings with regard to the substance of the *Guidelines*. First, there is no standard qualification for navigators. Improvement in this area is necessary to ensure that navigators have the skills necessary to safely operate within Arctic waters. Second, there are various regulations with regard to the icing that commentators have claimed are insufficient. Again, since the *Guidelines* provide only minimal requirements, it is possible for the coastal state to adopt stricter requirements. There is a difference, for example, between the regulations for icing, and those for navigator qualifications. Since states are responsible for implementing the training course, it is more difficult for individual navigators to seek additional training. With regard to the icing requirements, however, it is less difficult for the vessel operator to comply with stricter regulations introduced by a particular coastal state.

Numerous commentators have argued that the IMO *Guidelines* would be strengthened if its status were to become mandatory. This is not necessarily the case, however. Viewed within the context of the overall international regime, including both UNCLOS and the Arctic Council, the *Guidelines* play an integral role in their current status. Their recommendatory status means that more states are willing to participate. The specific nature of the *Guidelines* makes them more controversial than, for example, the provisions of UNCLOS. It would indeed be
desirable to have a more coherent set of regulations amongst Arctic states to ease the difficulties associated with Arctic travel through multiple jurisdictions, but movement in this area can be better achieved at the level of the Arctic Council. With regard to the Northwest Passage, Canadian legislators can use the Guidelines as a benchmark for a minimum level of protection that should be implemented to protect the Arctic from international shipping activities. Since it is in the national interest for Canada to maintain the waters of the Arctic Archipelago, and the Northwest Passage in particular, in as pristine a state as possible, it is desirable to incorporate any of the measures that are not already covered under domestic environmental legislation.

The Arctic Council maintains its role as a high level diplomatic forum. Several commentators have argued that the Council should evolve to become a permanent, independently funded body that can create binding obligations on the state parties. Accomplishing this would not, however, strengthen the functioning of the regime. The current status of the Council promotes an open dialogue between Arctic states regarding common issues. In this manner, state parties can be involved in the process without binding themselves to an additional set of legal obligations which could limit the ability of the domestic legislature to adapt to changing national interests. Therefore, the current model focuses on a collaborative approach to protecting the shared interests of Arctic states. The inclusion of aboriginal groups in the negotiations, as well as non-Arctic states as observers, is further proof of the desire of the state parties to pursue projects that represent the best interests of all the parties affected. This is not to say that the Arctic Council is without deficiencies.
For example, the fact that the pursuit of individual projects depends on the voluntary assumption of the lead position by a member state means that the projects undertaken are highly politicized. However, this weakness is overshadowed by the many positive contributions made to the Arctic through the work of the Arctic Council working groups. The monitoring and recommendatory activities of these working groups can inform and ultimately contribute to a strengthened regime for the protection of the Northwest Passage. In conjunction with the UNCLOS and IMO Guidelines regime, the work of the Arctic Council is contributing to a strengthened regime for the protection of the environment in the Arctic region.
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