

COMMENTS

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Unicorns of the Sea: Narwhals and Arctic Cruise Ship Tourism

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INTRODUCTION

Look! Aqualad is riding into town on a narwhal!

—Bob Haney, DC Comics

Narwhals are not only an animated character in Will Ferrell's Christmas movie *Elf*, narwhals are existing and adorable charismatic megafauna of the Arctic Ocean.¹ Charismatic megafauna are publicly cherished animals used by environmentalist groups to promote environmental goals—as seen with the World Wildlife Fund using giant pandas to campaign for conservation² and The National Geographic using polar bears in promotions to popularize an awareness of climate change.³ This Comment discusses why narwhals should be the charismatic megafauna used in an international campaign to represent the environmental needs of the Arctic Ocean.⁴ The Arctic Ocean needs a hero like the narwhal because the ocean is rapidly deteriorating due to climate change and Arctic maritime transit pollution.⁵ The assumption that the environment is separate from both humanity and economic systems lies at the heart of policy difficulties facing sustainable development in the Arctic; the narwhal can bridge this gap.⁶ This Comment analyzes one type of Arctic maritime transit: cruise ship tourism, which has its own unique set of regulations, guidelines, and problems.

Arctic cruise ship tourism is not consistently or thoroughly regulated despite being the largest and most popular form of Arctic tourism.

¹ *ELF* (New Line Cinema 2013), <http://www.imdb.com/title/tt0319343/>; “Charismatic megafauna” is a phrase used to describe animals the general public adore and environmental activists use to achieve and market environmentalism goals. Alia Hoyt, *How Charismatic Megafauna Work*, HOWSTUFFWORKS (Nov. 30, 2017), <https://animals.howstuffworks.com/endangered-species/charismatic-megafauna.html>.

² WORLD WILDLIFE FUND, <http://wwf.panda.org> (last visited Oct. 29, 2019).

³ Sarah Gibbens, *Heart-Wrenching Video Shows Starving Polar Bear on Iceless Land*, NAT'L GEOGRAPHIC (Dec. 7, 2017), <https://news.nationalgeographic.com/2017/12/polar-bear-starving-arctic-sea-ice-melt-climate-change-spd/>.

⁴ John Pavlus, Christie Nicholson & Christopher Mims, *Colossal Squid, Narwhals and Improvisational Robotics*, THE MONITOR (May 6, 2008), <https://www.scientificamerican.com/article/monitor-13-squid-narwhals-robotics>.

⁵ See Hans H. Hertell, *Arctic Melt: The Tipping Point for an Arctic Treaty*, 21 GEO. INT'L ENVT'L L. REV. 565, 573 (2009).

⁶ Erica M. Dingman, *Arctic Sustainability: The Predicament of Energy and Environmental Security*, Q.J. 2 (2011).

Arctic cruise ship tourism is growing rapidly in the twenty-first century and is negatively impacting the Arctic environment, communities, and culture on land, in the air, and in the water. The Arctic cruise ship tourism industry will only be sustainably, environmentally, and economically healthy if uniform conservation laws, rules, and regulations are created and enforced.

Some of the most successful environmental campaigns use cute and fuzzy animals to bring awareness to their cause. Narwhals are not fuzzy but are instead known for their grey tubular physique and are nicknamed the “unicorn of the sea” due to the males’ long ivory tusk spiraling counter-clockwise several feet forward from the upper lip.⁷ The narwhal’s uniqueness and adorableness make it a perfect charismatic megafauna to exemplify and promote the Arctic Ocean’s need for environmental protection.⁸

Narwhals exclusively live in the Arctic.⁹ The Arctic is the northern polar region of the Earth and spans one sixth of the Earth’s surface—approximately eleven million square miles of land, ice, and water.¹⁰ The Arctic arguably begins at the Arctic Circle, resting at the latitude line 66° 33' n.¹¹ This line marks a polar day, where twenty-four hours of uninterrupted light or dark envelopes the region during the summer and winter months.¹²

The Arctic is wild, cold, and isolated, but climate change has melted some hazardous ice, making the Arctic more accessible to ships during the summer months. Climate change and accessibility makes the Arctic exponentially more valuable to oil, natural gas, shipping, and tourism industries. In particular, tourists are taking advantage of the newly ice-free Arctic Ocean and waterways to tour the icy isolated beauty and search for narwhals.¹³

⁷ Pavlus, *supra* note 4.

⁸ *Id.*

⁹ *Id.*

¹⁰ JOHN McCANNON, A HISTORY OF THE ARCTIC: NATURE, EXPLORATION AND EXPLOITATION 1, 9 (Reaktion Books, Ltd. 2012); see, e.g., *Arctic History*, ARCTIC INFO (Nov. 6, 2017), <http://www.arctic-info.com/encyclopedia/arctic-history/>.

¹¹ *Arctic History*, *supra* note 10. Where the Arctic begins is highly disputed; however, the latitudinal line of the Arctic Circle is often used to define its boundaries. *Id.*

¹² *Id.*

¹³ *Arctic Tourism*, WORLD WILDLIFE FUND, http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we_do/tourism/ (last visited Mar. 29, 2018).

Despite its inhospitable climate, the Arctic has been a top destination for tourists and explorers since the sixteenth century. In August 2016, the first large luxury cruise liner, *Crystal Serenity*, sailed through a part of the Arctic.¹⁴ The *Crystal Serenity* is unique because it was the first one-thousand passenger, nonpolar classified ship to navigate the Northwest Passage.¹⁵ The Northwest Passage sits in the Arctic Ocean above Canada and is only possible during the summer months.¹⁶ However, the Northwest Passage will be a potential year-round shipping route as ice melts, which is estimated to take place by 2050.¹⁷

Arctic legal research and issues are important and challenging because the Arctic is the fastest changing environment in the world, and as a result, the regulations and laws of the Arctic are changing quickly. This Comment will focus on the Arctic Ocean, coastal impacts, and international laws of Arctic cruise ship tourism, using the *Crystal Serenity* as a case study. Part I will address the history and maritime laws governing Arctic cruise ship tourism. This Section will begin with a history of Arctic cruise ship tourism and end with a summary of international maritime law in the Arctic. Part II will discuss the international organizations and laws governing Arctic cruise ship tourism and the problems of a lack of uniformity and conflicts of law. Part III will discuss how Arctic cruise ship tourism affects the Arctic. Arctic tourism is growing in popularity; after all, who wouldn't want to see a "*unicorn of the sea?*" This Section will discuss the environmental vulnerabilities tourism exploits in the Arctic—animals and Arctic communities—as well as the problems associated with tourism in the Arctic: tracking tourism damage, search and rescue, and responding to emergency response.

¹⁴ Christina Nunez, *A Luxury Cruise Liner Is About to Sail the Arctic's Northwest Passage*, NAT'L GEOGRAPHIC (Aug. 16, 2016), <http://news.nationalgeographic.com/2016/08/crystal-serenity-luxury-cruise-arctic-northwest-passage.html>.

¹⁵ *Crystal Cruise Northwest Passage 2016 Frequently Asked Questions*, CRYSTAL CRUISES, http://www.crystalcruises.com/files/brochures/Northwest_Passage_V6319_FAQs-FINAL4_71414.pdf (last visited Mar. 29, 2018).

¹⁶ MCCANNON, *supra* note 10, at 15. From east to west, the Northwest Passage crosses the Canadian Arctic Archipelago, above the west side of Canada, from Baffin Bay—just south of Greenland—to the Beaufort Sea, north of the west side of Canada. *Id.*; Günther Handl, *Northwest Passage (Canadian-American Controversy)*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L., (2013).

¹⁷ Christian Haas & Stephen E.L. Howell, *Ice Thickness in the Northwest Passage*, GEOPHYSICAL RESEARCH LETTERS, 2673, 7673 (2015). The Northwest Passage is passable only during the summer months. In the summer, shifting multiyear ice does not melt and causes transit problems. Multiyear ice is the thickest sea ice in the world and makes transit shipping more difficult. However, future climate models have projected that the Northwest Passage will be navigable year-round by 2050. *Id.*

Lastly, Part IV will discuss the need for a stronger Arctic legal regime for sustainable tourism and potential future Arctic institutions and legal frameworks. In conclusion, this Comment argues in favor of an international environmental campaign using narwhals as its hero and charismatic megafauna—similar to the WWF panda bear and National Geographic polar bear campaigns. Bringing the media and public sphere into the urgent Arctic environment conversation will create change and help stay climate change.

I HISTORY AND LAW

*Glittering white, shining blue, raven black,
the land looks like a fairytale.*

—Roald Amundsen, Arctic Explorer (1872–1928)

The history of Arctic cruise ship tourism and its laws are unique, controversial, and ambiguous, putting tourists and the Arctic environment at risk. It is important to understand the legal history of the Arctic, including the history of Arctic cruise ship tourism, to understand what needs to change to protect the Arctic.

A. The History of Arctic Cruise Ship Tourism

In 1985, the MS *Explorer* was the first small vessel cruise ship to navigate the Arctic’s Northwest Passage and carried ninety-eight passengers on a twenty-three day cruise.¹⁸ Since then, Arctic tourism has rapidly grown, and Arctic cruises annually navigate the Northwest Passage in part or full.¹⁹ The U.S. Department of Fisheries and Oceans (USDOF) tracked nineteen vessels traveling the Northwest Passage in 2010.²⁰ The USDOF estimated thirty-nine yachts and noncommercial

¹⁸ JENNIFER HILL & TIM GALE, ECOTOURISM AND ENVIRONMENTAL SUSTAINABILITY PRINCIPLES AND PRACTICE 89 (Ashgate Publ’g Ltd. 2009); ironically, the MS *Explorer* was also the first cruise ship to sink in a polar region. In 2007, the ship sank in Antarctica after cracking its hull on submerged ice. There were no casualties or injuries; however, passengers spent five hours in the Antarctic elements, sitting in open rafts waiting for nearby ships to rescue them. The MS *Explorer* currently sits at the bottom of the ocean near Antarctica. Its environmental impacts and consequences are unknown. *Id.*

¹⁹ *Cruise Ship Goes Down off Antarctica*, NBC NEWS (Nov. 24, 2007), http://www.nbcnews.com/id/21935099/ns/world_news-americas/t/cruise-ship-goes-down-antarctica/#.WgE7ibbMyb8.

²⁰ *Id.*

vessels would traverse the Northwest Passage in the summer of 2018.²¹ During these excursions, passengers visit small Arctic communities, snorkel sunken nineteenth-century ships, and enjoy beautiful scenery and animals of the Arctic.

In August 2016, the Northwest Passage experienced a tourism milestone when the largest cruise ship, carrying 1,070 tourists, cruised through the Northwest Passage; the cruise ship is named the *Crystal Serenity*.²² The luxury 821-foot-long passenger ship set a tourist back \$22,000–\$120,000, plus a \$50,000 insurance plan, and cruised for thirty-two days, from Alaska to New York.²³ Tourists had the opportunity to see narwhals, whales, polar bears, and walruses, and had it not been for bad weather, passengers could have snorkeled the infamous 1848 shipwreck of Rear-Admiral Sir John Franklin, the HMS *Terror* and HMS *Erebus*.²⁴

The *Crystal Serenity* is a non-ice-class cruise ship. Only ten percent of the Arctic waters above Canada are mapped and the rest are riddled with hazardous conditions and icebergs.²⁵ For safety, an icebreaker, professional Arctic navigators, Arctic scientists, and two helicopters for emergency evacuations accompanied the *Crystal Serenity*.²⁶ The ship voyaged safely; however, the U.S. Coast Guard, private agencies, and nearby ships remained on high alert during its cruise.²⁷

Understandably, emergency response in the Arctic is slow, unpredictable, and largely controlled by weather and luck. The U.S. Coast Guard estimates a *Crystal Serenity*–sized emergency could easily be a catastrophic event because “[t]he potential number of people on cruise ships that would need rescue exceeds the capacity of most [search and rescue] response vessels and aircraft available in the Arctic.”²⁸ If there was an emergency, a human can survive only a few minutes when fully exposed to Arctic elements; therefore, if a cruise

21 *Id.*

22 Nunez, *supra* note 14.

23 *Id.*

24 Janet Davison, *Snorkeling in Icy Waters and Hiking Remote Terrain: Adventure Tourism Arrives in the Vulnerable Arctic*, CBC.CA (Oct. 9, 2017), <http://www.cbc.ca/news/canada/adventure-tourism-north-1.4279932>.

25 Claire Eamer, *The Canadian Arctic Remains Dangerously Unmapped*, HAKAI MAG. (May 6, 2016), <https://www.hakaimagazine.com/news/canadian-arctic-remains-dangerously-unmapped/>.

26 Nunez, *supra* note 14.

27 *Id.*

28 *Id.*

ship had a Titanic-like emergency, the survival rates for passengers would be critically low.²⁹

The environmental impact of the *Crystal Serenity* concerned environmental advocates. Carbon emissions and accidental oil spillage from cruise ships affect the Arctic more dramatically due to its unique and vulnerable climate.³⁰ The *Crystal Serenity* mitigated its environmental impact by voluntarily running on a cleaner version of diesel, but other large cruise ships and transit ships do not.³¹ Additionally, the *Crystal Serenity* visited small villages in the Canadian and Alaskan Arctic, including the town of Ulukhaktok, which has a year-round population of 400 people.³² The *Crystal Serenity* passengers and crew outnumbered the townspeople four to one. The town trained for the impact of the *Crystal Serenity* and controlled damage by allowing 150 passengers into town at a time.³³ The *Crystal Serenity* proved that large cruise ships are feasible in the Arctic. Although the *Crystal Serenity* is not scheduled to voyage the Northwest Passage or the Arctic again, it left a lasting impact and unresolved questions regarding the sustainability of cruise ship tourism in the Arctic.

Sailing the Northwest Passage on commercial or passenger ships has a long and complicated history. It is necessary to understand the past and current controversies surrounding the Northwest Passage to understand the conflicts within Arctic cruise ship tourism and law.

B. Arctic Legal History

The legal history of the Arctic is long; to make this Comment a manageable size, below is a brief summary of Arctic legal history and

²⁹ For an interesting chart on hypothermia and survival rates in cold climates see Christina Sterbenz, *Chart: Here's How Long You Can Stay Outside in Extreme Cold Temperatures Before Getting Frostbite*, BUS. INSIDER (Jan. 5, 2014), <http://www.businessinsider.com/how-long-does-it-take-to-get-frostbite-or-hypothermia-2014-1>.

³⁰ JACK Q. WORD, ENVIRONMENTAL IMPACTS OF ARCTIC OIL SPILLS AND ARCTIC SPILL RESPONSE TECHNOLOGIES (Dec. 2014), <http://neba.arcticresponsetechnology.org/assets/files/Environmental%20Impacts%20of%20Arctic%20Oil%20Spills%20-%20report.pdf> ("Conditions are very different in high latitude marine environments . . . the Arctic and Antarctic marine environments are characterized by seasonal extremes of photoperiod, spatial variability in salinity and temperature, as well as generally colder surface temperatures compared to the temperate latitudes. These differences may result in different expectations about the rate of oil degradation.").

³¹ Nunez, *supra* note 14.

³² *Id.*

³³ *Id.*

relevant laws regulating transit and tourist ships in the Northwest Passage.³⁴

The Arctic Ocean contains a wealth of resources and opportunities. Scientists estimate the Arctic holds seventy percent of the earth's untapped oil and natural gases worth trillions of dollars.³⁵ Additionally, as climate change melts year-round ice, shipping routes through the Arctic are navigable longer. Arctic shipping routes are a safer and shorter alternative to shipping routes using the Panama Canal.³⁶ Arctic shipping routes reduce shipment distances up to 7,000 miles between Asia, the United States, and Europe.³⁷ Military strategists know the Arctic has many advantages, the most important being its central location.³⁸ A missile launch from the Arctic could strike many major cities; the North Pole is within 3,000 miles, a five-hour flight, or a fifteen-minute ballistic missile trajectory to Ottawa, Paris, Moscow, and Anchorage.³⁹ Additionally, the shifting sounds of the Arctic ice hide nuclear submarines' sonar signals from searching radar devices.⁴⁰ During the Cold War, foreign nuclear submarines were known to hide in the Arctic for months, only caught by pure luck.⁴¹

The Cold War was a catalyst for intensive Arctic exploration, military research, and law. During the Cold War, the former Soviet Union, the United States, and Canada rushed to be the first at the North Pole, showcasing their military prowess, capabilities, and legal claims.⁴² In the race, the United States had the first submarine expedition to reach the North Pole, and the submariners played the first

³⁴ For a more in-depth discussion on the history and laws surrounding the Arctic, see MCCANNON, *supra* note 10.

³⁵ Irena Valková, *Claiming the Arctic: On the Legal Geography of the Northernmost Sovereignty Dispute*, 7 POLAR J. 143, 143 (2017).

³⁶ Handl, *supra* note 16.

³⁷ *Id.*

³⁸ Alexandre Piffero Spohr et al., *The Militarization of the Arctic: Political, Economic and Climate Challenges*, 1 UFRGS MODEL UNITED NATIONS J. 11, 16 (2013).

³⁹ Dave Mosher, *North Korea Has Tested Another Intercontinental Ballistic Missile*, BUS. INSIDER (Jul. 28, 2017), <http://www.businessinsider.com/how-intercontinental-ballistic-missiles-work-north-korea-2017-7> (missile calculation); *see also* DISTANCE FROM TO, <https://www.distancefromto.net/between/Moscow/North+Pole> (last visited Nov. 10, 2017) (distance calculation); *see also* How Fast Aeroplanes Fly, QUORA, <https://www.quora.com/.How-fast-do-aeroplanes-fly> (last visited Nov. 10, 2017) (airspeed calculation).

⁴⁰ Piffero Spohr et al., *supra* note 38, at 16.

⁴¹ *Id.*

⁴² MCCANNON, *supra* note 10, at 250–51.

game of North Pole baseball.⁴³ But, Russia was the first to land on the North Pole by air and land rover.⁴⁴

These political ploys and news headliners did not have lasting legal effect on Arctic ownership, but they did lead to a rapid proliferation of Arctic claims, laws, and regulations from each of the eight Arctic countries, each hoping to take and control a piece of the Arctic resource pie.⁴⁵

The Cold War rush to the North Pole sparked a controversy over Arctic control, autonomy, and sovereignty over Arctic passageways, including the Northwest Passage. In 1880, Canada claimed sovereignty over a large portion of the Arctic, including the Northwest Passage and other passageways, and struggled to keep control of the Arctic it claimed throughout the Cold War.⁴⁶ During the Cold War, Canada banned Soviet submarines and bombers in the Arctic and rebuffed land claims from the Danish and Norwegians; however, Canada could not rebuff the United States.⁴⁷

After discovering the wealth of the Arctic, the United States sailed the Northwest Passage, ignoring Canada's claim.⁴⁸ In 1969, the USS *Manhattan* voyaged through the Northwest Passage from New York to Prudhoe, Alaska, where the ship loaded one barrel of crude Alaskan oil and returned to New York.⁴⁹ The United States maintained the voyage was legal because the Northwest Passage connects three high seas—

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ The eight Arctic nations are the United States, Canada, the Russian Federation, the Kingdom of Denmark, Iceland, Finland, Norway, and Sweden. Donald R. Rothwell, *International Law and the Protection of the Arctic Environment*, 44 INT'L & COMP L.Q. 2, 280, n.8 (1995).

⁴⁶ MICHAEL BYERS, INTERNATIONAL LAW AND THE ARCTIC 12 (2013). Canada claimed a large portion of the Arctic from England, which had historic Arctic sovereignty. *Id.*

⁴⁷ MCCANNON, *supra* note 10, at 260.

⁴⁸ *Id.* at 254. Interestingly, the ship was stopped mid-voyage by a party of Inuit kayakers. After, the U.S. ship asked for and was granted permission from the Canadian government to traverse their sovereign territory. The USS *Manhattan* was then escorted by the Canadian Coast Guard. *Id.*

⁴⁹ *Id.* at 253. See also Ruth Lapidot, *Straits, International*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L. (2006). Customary international law governing international straits was used to justify Great Britain's legal claim against Albania after WWII. During WWII, Great Britain sailed warships through the Corfu Channel of Albania where Albania had planted landmines in the waters, and Great Britain lost ships and men. In the 1949 Corfu Channel Case, the International Court of Justice further defined an international strait and awarded Great Britain damages from Albania's use of incendiaries.

the Atlantic, Arctic, and Pacific Oceans—and was therefore an international strait and freely navigable under international laws.⁵⁰

The voyage provoked protest and prompted Canada to pass legislation attempting to strengthen its sovereign Arctic claims to keep other ships out of the Northwest Passage.

In 1970, Canada enacted the Arctic Water Pollution Prevention Act of 1970 (WPPA).⁵¹ This act required all vessels within 100 miles of Canadian shores to comply with Canadian environmental safety codes—the Northwest Passage is within 100 miles of its shore.⁵² Despite the WWPA, the United States planned another Northwest Passage voyage on the USS *Polar Star*, ignoring Canadian requirements.⁵³ In response, Canada broadened its claim and Arctic boundaries again and required all ships to apply for authorization from Canadian authorities before entering the Northwest Passage.⁵⁴ Both countries compromised; the United States agreed to obtain permission before entering the Northwest Passage, and Canada conceded its claim had no legal significance on future legal claims to the Arctic.⁵⁵

Today, Canada and most foreign ships passing through the Northwest Passage hold the same relationship. The foreign ships maintain Canada has no basis to claim sovereignty over the Northwest Passage because the Northwest Passage is an international strait and therefore freely navigable.⁵⁶ Canada continues to claim its sovereignty over the Arctic and enforce the WPPA, amended most recently in 2009.⁵⁷

⁵⁰ *Id.*

⁵¹ Handl, *supra* note 16.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.* After the *Polar Star* voyage, Canada adopted the Territorial Sea Geographical Coordinates Order. This order reinforced its claim over the Arctic Archipelago's Northwest Passage and defined its sovereign outer parameters. Again, the United States rejected the legislation as having no grounds in international law. As a result, Canada and the United States negotiated the Agreement on Arctic Cooperation and the Exchange of Notes Concerning Transit of the Northwest Passage of 1988. The United States and Canada again agreed that the United States would not use the Northwest Passage without consent from the Canadian government, but this agreement would have no effect on future legal claims. *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.* Canada's claim on the Arctic and the Northwest Passage is based on two arguments: first, that they have a historic title to the waters under the case *United Kingdom v. Norway*, adjudicated by the International Court of Justice. And second, Canada claims the Northwest Passage should be under Canada's claim because it is in the Arctic Archipelago,

However, in 2016, the United States budged slightly. During the last months of President Barack Obama's presidency, the United States advised all American ships to follow Canada's strict environmental regulations in the Northwest Passage and surrounding Arctic waters and embraced Canadian Prime Minister Justin Trudeau's development of stricter shipping restrictions in the Arctic.⁵⁸

The Arctic controversy over sovereignty continues between the eight Arctic nations. Understandably, each nation wants its share of Arctic resources, the freedom to navigate the Arctic, and to exploit industrial and military opportunities. When the *Crystal Serenity* sailed the Northwest Passage in 2016, the ship obtained permission from the Canadian government and complied with environmental regulations before setting voyage.⁵⁹ *But, was it legally necessary?*

C. Arctic Ocean and Coastal Law

Like Arctic history, Arctic ocean and coastal law is complicated. A short summary of relevant Arctic law is below.⁶⁰ This Section will analyze and identify the most relevant maritime laws affecting Arctic cruise ship travel and tourism.

From 1608 to 1994, the Freedom of the Seas Doctrine was widely accepted by all coastal states.⁶¹ The Freedom of the Seas Doctrine held that the high seas were freely navigable and exploitable, as long as one country's use did not impede upon another country's use.⁶² In 1994, the United Nations Convention on the Law of the Sea (UNCLOS) defined coastal laws and maritime zones.⁶³ One hundred and sixty-four

which belongs to Canada under a straight baseline analysis of the United Nations Convention on the Law of the Sea. *Id.*

⁵⁸ U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership, JUSTIN TRUDEAU, PRIME MINISTER OF CANADA (MAR. 10, 2016), <https://pm.gc.ca/eng/news/2016/03/10/us-canada-joint-statement-climate-energy-and-arctic-leadership>.

⁵⁹ Erica Silverstein, *Crystal Announces Expedition Team for Second Northwest Passage Cruise*, CRUISE CRITIC (Feb. 1, 2017), <https://www.cruisecritic.com/news/news.cfm?ID=7507>.

⁶⁰ To read a complete analysis of Arctic Ocean and coastal laws, see Craig H. Allen, *Arctic Law & Policy Year in Review: 2016*, 7 WASH. J. ENVTL. L. & POL'Y (2017).

⁶¹ MCCANNON, *supra* note 10, at 147.

⁶² *Id.*

⁶³ *United Nations Convention of the Laws of the Sea (A Historical Perspective)*, OCEAN & LAW OF THE SEA UNITED NATIONS (Oct. 23, 2018), http://www.un.org/depts/los/convention_agreements/convention_historical_perspective.htm. The United Nations Convention on the Law of the Sea (UNCLOS) was devised from four conventions assembled during the 1958 Geneva Convention and its 1994 ratification: the Convention of

countries have ratified the UNCLOS, and an additional fourteen countries have acknowledged the UNCLOS by signature.⁶⁴

The UNCLOS does not decree control over oceans and seas, but it defines maritime zones attached to and reaching out from coastal states. Each maritime zone extends a coastal nation's laws and defines varying degrees of coastal jurisdictions, sovereignty, and control depending on the maritime zone.⁶⁵ Of the eight Arctic nations, the United States is the only nation-state not to ratify the UNCLOS.⁶⁶ However, the United States is one of the fourteen nation-states that signed the UNCLOS papers.⁶⁷ This is important because, in effect, the United States considers the UNCLOS "customary international law" and follows most UNCLOS provisions.⁶⁸ However, it is not bound to the laws nor does it enjoy some benefits like the Arctic nations who codified the UNCLOS into their own national laws.⁶⁹

Cruise ships are regulated by multiple laws, depending on their location.⁷⁰ At all times, a cruise ship is subject to the domestic laws of the country where it is registered, called flag state laws.⁷¹ Additionally, cruise ships are subject to the domestic laws of nations when they are in jurisdictional waters.⁷² Therefore, Arctic cruise ships traveling the Arctic Northwest Passage, like the *Crystal Serenity*, are subject to the

the High Sea, the Convention of the Territorial Seas and Contiguous Zones, the Convention on the Continental Shelf, and the Convention on Fishing and Conservation of Living Resources of the High Seas. *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.* The UNCLOS not only defines maritime zones but also the freedom of navigation rights, the rules for extending continental shelf claims, and conflict resolution mechanisms. *Id.*

⁶⁶ Oran R. Young, *The Shifting Landscapes of Arctic Politics: Implications for International Cooperation*, 6 THE POLAR J. 209, 210 (2016).

⁶⁷ *Id.*

⁶⁸ *Id.* at 211. The United States has explicitly rejected UNCLOS Part XI "international seabed area." For a discussion on the United States joining the UNCLOS, see *The U.S. National Security and Strategic Imperatives for Ratification: Hearing on the Law of the Sea Convention Before the S. Comm. on Foreign Relations*, 112th Cong. (2012) (statement of Hillary Clinton, Secretary of State of the United States), https://www.foreign.senate.gov/imo/media/doc/REVISED_Secretary_Clinton_Testimony.pdf.

⁶⁹ *Id.*

⁷⁰ Rainer Lagoni, *Merchant Ships*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L. (2011).

⁷¹ House Committee Crimes at Sea Report, PARLIAMENT OF AUSTL., Inquiry into the Arrangements Surrounding Crimes Committed at Sea 22 (Mar. 29, 2018), https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=spl/a/crimes%20at%20sea/report/chapter3.pdf.

⁷² *Id.*

maritime zones encompassing the passage under the UNCLOS, the flag state laws, and the domestic laws of the water's jurisdiction. However, as history shows, there is a conflict as to whether the Northwest Passage is an international strait or within a maritime jurisdiction and held as Canadian sovereign waters.⁷³ This is significant, because the difference between an international strait and Canadian sovereign waters is drastic and will change how Arctic cruise ships operate in the Northwest Passage and parts of the Arctic.

Maritime zones are an extension of a coastal nation and govern the jurisdiction, laws, and enforcement mechanism of that nation.⁷⁴ Therefore, cruise ships entering a nation's maritime zones are subject to that nation's laws, regulations, and enforcement. In general, maritime zones have progressively less power the farther from land.⁷⁵ The UNCLOS delineates seven maritime zones: internal waters, coastal waters, territorial seas, archipelagic waters, contiguous zones, exclusive economic zones, and international waters.⁷⁶

Internal waters are the waterways within a state, including rivers and lakes.⁷⁷ Coastal waters are the waters immediately touching the coast of a nation.⁷⁸ Coastal waters extend three nautical miles (nm) from the baseline of the coast.⁷⁹ Territorial seas are the waters reaching twelve nm off the coast of a state.⁸⁰ Archipelagic waters are the waters in and between archipelagoes;⁸¹ archipelagoes are a series of closely grouped and scattered islands.⁸² A coastal state has full control over internal waters, territorial seas, and archipelagic waters and can freely exploit the air space, sea bed, and subsoil in them.⁸³

⁷³ MICHAEL BYERS, INTERNATIONAL LAW AND THE ARCTIC 12 (2013).

⁷⁴ Andrew Schulkin, *Safe Harbors: Crafting an International Solution to Cruise Ship Pollution*, 15 GEO. INT'L ENVTL. L. REV. 105, 119–20 (2002).

⁷⁵ See Handl, *supra* note 16.

⁷⁶ United Nations Conference on the Law of the Sea, pt. 2, arts. 3–15, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

⁷⁷ UNCLOS, *supra* note 76, at pt. 2, art. 8.

⁷⁸ *Id.* at art. 3.

⁷⁹ Valková, *supra* note 35, at 147.

⁸⁰ *Id.*

⁸¹ Sarah Wolf, *Territorial Sea*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L., (2013). Archipelagic waters are the waters surrounding archipelagic lands and states. *Id.*; see also Carlos Jimenez Piernas, *Archipelagic Waters*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L., (2013).

⁸² NAT'L GEOGRAPHIC, *Archipelago*, <https://www.nationalgeographic.org/encyclopedia/archipelago/> (last visited Oct. 16, 2018).

⁸³ Wolf, *supra* note 81.

Beyond the territorial sea boundary of twelve nm, another boundary called the contiguous zone extends another twelve nm into the sea.⁸⁴ A coastal state can enforce four types of law in a contiguous zone: taxation, immigration, pollution, and customs.⁸⁵ Beyond the contiguous zone is the last and largest zone, the exclusive economic zone (EEZ). The EEZ extends 200 nm from a state's coast.⁸⁶ A coastal nation has complete and sole exploitation rights over all resources in its EEZ—whether it be fish, minerals, oil, or gas.⁸⁷ Within its EEZ, a nation may exercise marine scientific research; establish artificial islands, installations, and structures;⁸⁸ and create relevant provisions to protect and preserve marine environments.⁸⁹

Under the UNCLOS, all ships must be granted innocent passage⁹⁰ while outside the twelve nm zone of a coastal state.⁹¹ However, ships that are granted innocent passage do not escape laws and regulations that the coastal nations impose, including navigation, safety, protection of the environment, scientific research, protection of artificial installations, and prevention of pollution—as long as they are compatible with the UNCLOS.⁹² Under the UNCLOS, coastal state laws cannot apply to the “design, construction, manning, or equipment of foreign ships” unless they are given effect by other international laws.⁹³

⁸⁴ Valková, *supra* note 35, at 147.

⁸⁵ *Id.*

⁸⁶ *Id.* All maritime boundaries are measured from a coast at its baseline. The UNCLOS defines a baseline as “localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing a baseline.” UNCLOS, *supra* note 76, pt. 2, art. 7, and pt. 3.

⁸⁷ Valková, *supra* note 35, at 147.

⁸⁸ Artificial structures do not extend maritime zones. *E.g.*, UNCLOS Exclusive Economic Zone, UNCOLOS *supra* note 76, pt. V, art. 60, http://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm.

⁸⁹ *Id.* art. 56.

⁹⁰ Passage is defined as “a) traversing the sea without entering internal waters or calling at a roadstead or port facility outside internal waters or; b) proceeding to or from internal waters to call at such roadstead or port facility.” Passage must be continuous and expeditious. Innocent Passage means a passage that “is not prejudicial to peace, good order, or security of the coastal State” and must conform to the UNCLOS. Prejudicial passage includes “any threat or use of force against the sovereignty, territorial integrity or political independence of a coastal State, or any other manner in violation of the principles of international law.” UNCLOS, *supra* note 76, arts. 17–19.

⁹¹ Valková, *supra* note 35, at 147.

⁹² *Id.* See also UNCLOS, *supra* note 76, art. 58(3).

⁹³ UNCLOS, *supra* note 76, art. 21.

Outside the EEZ is international waters. The UNCLOS reserves international waters for peaceful purposes and leaves the waters unregulated; additionally, coastal states cannot impose regulations on them.⁹⁴ International waters consist of the high seas and the international seabed.⁹⁵ High seas are any waters apart from the six boundaries listed above.⁹⁶ Under the rules on the Freedom of Navigation of the High Seas Convention of the UNCLOS, foreign ships can freely navigate, conduct scientific research, fish, construct artificial islands, overflight, and lay submarine cable in the high seas.⁹⁷

However, the traditional Freedom of Navigation can extend to waterways existing inside the territorial seas under specific circumstances.⁹⁸ A waterway is subject to the Freedom of Navigation convention if it is an international strait.⁹⁹ An international strait is a waterway that connects the high seas.¹⁰⁰ Two elements define an international strait: geography (how it connects to the high seas) and function (how it could be used for international navigation).¹⁰¹ In an international strait, foreign ships have non-suspendable innocent passage—treating it like international waters.¹⁰² Therefore, when the Freedom of Navigation convention extends to a waterway, coastal nation regulations and laws will not be enforceable on foreign ships.¹⁰³

The second part of international waters is the international seabed area.¹⁰⁴ The international seabed area is the seabed, ocean floor, and subsoil of the ocean floor beyond a coastal state's maritime

⁹⁴ *Id.* art. 88.

⁹⁵ See Tullio Teves, *High Seas*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L., (2009).

⁹⁶ UNCLOS, *supra* note 76, art. 86.

⁹⁷ *Id.* art. 2.; see also Handl, *supra* note 16. The UNCLOS added two other freedoms, including the construction of artificial islands and installations, and freedom of scientific research. UNCLOS, *supra* note 76, art. 87.

⁹⁸ UNCLOS, *supra* note 76, art. 16(1). “The majority of straits used for international navigation are between 6 and 24 nm wide. Thus, before the extension of the outer limit of the territorial sea, coastal States could each have territorial seas of less than 12 nm (normally 3 nm) and still leave an area of the *high seas* for other States’ exercise of freedom of navigation and overflight.” Said Mahmoudi, *Transit Passage*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT'L L., (2008).

⁹⁹ *Id.*

¹⁰⁰ Lapidoth, *supra* note 49.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ Valková, *supra* note 35, at 148.

jurisdiction.¹⁰⁵ The international seabed area provision of the UNCLOS affects continental shelf claims, which will not be discussed in this Comment. However, it is interesting to note that the United States did not codify the UNCLOS because it does not agree with this section.¹⁰⁶

The UNCLOS maritime zones are significant to cruise ship tourism in the Northwest Passage.¹⁰⁷ If the Northwest Passage is considered an international strait, then no coastal state can enforce regulations on its waters, and foreign ships do not have to implement environmental laws protecting the Arctic.¹⁰⁸ However, Canada has claimed the Northwest Passage as its sovereign waters and insists that all foreign ships, including cruise ships, abide by its strict environmental conservation laws when traversing the Northwest Passage.¹⁰⁹ This conflict is not resolved, and commercial and noncommercial ships are traversing the Northwest Passage, only sometimes complying with Canadian regulations.

If a ship forgoes Canada's environmental regulations, it must abide by the laws of innocent passage under the UNCLOS.¹¹⁰ However, tracking compliance with the UNCLOS is difficult and "weak" because it fails to provide an active enforcement mechanism.¹¹¹ This next Section will discuss the organizations regulating Arctic cruise ship tourism operating under the UNCLOS.

¹⁰⁵ The international seabed area starts at the 200 nm distance from a coastal state's EEZ and baseline, or at the end of a coastal state's continental shelf extending beyond 200 nm. The international seabed area will not be discussed in detail. *Id.*; see also UNCLOS, *supra* note 76, art. 1(1). For further discussion, see Arctic Institute, *Exploring Continental Shelf Claims in the Arctic*, The ARCTIC INSTITUTE (Dec. 2, 2017), <https://www.thearcticinstitute.org/continental-shelf-claims-arctic-infographic/>.

¹⁰⁶ State of Hillary Clinton, Secretary of State of the United States, *supra* note 68.

¹⁰⁷ Leonidas Samouladas, *Regulatory Framework for Arctic Cruising*, AALTO UNIVERSITY SCHOOL OF ENGINEERING, DEPT' OF APPLIED MECHANICS, 37 (Mar. 25, 2015), https://aalto.doc.aalto.fi/bitstream/handle/123456789/16690/master_Samouladas_Leonidas_2015.pdf?sequence=1&isAllowed=y.

¹⁰⁸ Suzanne Lalonde, *Increased Traffic Through Canadian Arctic Waters: Canada's State of Readiness*, 38 R.J.T. 49, 84 (2004). See generally BYERS, *supra* note 46, at 12.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ Lauren C. Williams, *An Ocean Between Us: The Implications of Inconsistencies Between the Navigational Laws of Coastal Arctic Council Nations and the United Nations Convention on the Law of the Sea for Arctic Navigation*, 70 VAN. L. REV. 379, 395 (2017).

II**ORGANIZATIONS REGULATING ARCTIC CRUISE SHIP TOURISM**

There are two kinds of Arctic problems, the imaginary and the real. Of the two, the imaginary are the most real.

—Vilhjalmur Stefansson, Arctic Explorer (1879–1962),
The Arctic in Fact and Fable

The UNCLOS states that international oceans and coastal laws are “governed by the rules and principles of general international law.”¹¹² Arctic cruise ship tourism is regulated by multiple international legal organizations and frameworks, the most prominent being the Arctic Council, international maritime law under the International Maritime Organization of the UNCLOS, and international tourism law under the World Tourism Organization and World Travel and Tourism Council.¹¹³ This Section will discuss the problems of enforcement, uniformity, and conflicting laws between these three prominent international organizations that regulate Arctic cruise ship tourism.¹¹⁴

A. International Tourism Law

International tourism law is the weakest legal framework regulating Arctic cruise ship tourism.¹¹⁵ International tourism laws only provide guidelines and recommendations regarding tourism; their adoption is voluntary.¹¹⁶ To fully understand how tourism laws regulate Arctic cruise ship tourism, we must first define tourism and tourism law.

The history of Arctic cruise ship tourism is young, but the history of tourism is not. Tourism is a worldwide phenomenon dating back to 485 BCE, and it was historically available only to the royal and the rich.¹¹⁷

¹¹² Preamble, “Affirming,” UNITED NATIONS, http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (last visited Dec. 2, 2017).

¹¹³ Samouladas, *supra* note 107, at 37.

¹¹⁴ Generally, when international laws conflict with national or private laws, conflict of law rules are used to create uniform laws through treaties or modified national laws. Conflict of laws are a set of rules and procedural laws determining which legal system applies in a specific jurisdiction during a legal dispute or conflict. *Conflict of Laws*, US LEGAL, <https://conflictsoflaws.uslegal.com> (last visited Oct. 16, 2018).

¹¹⁵ Samouladas, *supra* note 107, at 56, 68.

¹¹⁶ *Id.*

¹¹⁷ Ueli Gyr, *The History of Tourism: Structures on the Path to Modernity*, EUR. HISTORY ONLINE (Nov. 11, 2017), <http://ieg-ego.eu/en/threads/europe-on-the-road/the-history-of-tourism/ueli-gyr-the-history-of-tourism>. Rich and royal Grecians and Egyptians

However, in the twentieth and twenty-first centuries, travel and tourism became cheaper, faster, and more accessible to all. Tourism has experienced the largest growth in the twentieth and twenty-first centuries and continues to grow.¹¹⁸ The world expects 1.6 billion tourists in 2020, reaching global earnings of US 2 trillion, which is approximately ten percent of the Gross World Product.¹¹⁹ Despite its lucrative nature, tourism does not have an official study, academic discipline, or internationally ratified law, only guidelines and recommendations.¹²⁰

Tourism law is more complicated than international Arctic law and international maritime law because it affects human interactions, regionally and globally, in every industry, simultaneously.¹²¹ Generally, tourism is defined as “activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.”¹²² Under the definition of tourism, travelers cannot be paid to travel and must return home after one day but not before one year to qualify as a tourist.¹²³ Therefore, refugees, migrant workers, and the homeless do not fit this description.¹²⁴ The definition of tourism will vary depending on where tourists are traveling. The definition will change depending on the tourism service provider, the government’s role in tourism, and whether a tourist is traveling to an artificial or natural attraction.¹²⁵

traveled for recreation and education. Egyptians traveled to famous monuments, the pyramid of Sakkara, and the Sphinx of Gizeh. Similarly, the Greeks traveled to Delphi for the Pythian Games and to question their Oracles. *Id.*

¹¹⁸ *Id.*
¹¹⁹ Patrick Vrancken, *Tourism*, MAX PLANK ENCYCLOPEDIA OF PUB. INT’L L., (2011). Fifty-two percent of global tourism arrives and disperses from Europe, twenty-one percent from the Asian and Pacific regions. Although the United States is the top tourism earner, France has the highest international arrivals. In the United States alone, citizens took 1.7 billion leisure trips in 2016, culminating in 638.1 billion spent on tourism. *Id.*

¹²⁰ Editorial, *Polar Tourism (Research) Is Not What It Used to Be: The Maturing of a Field of Study Alongside an Activity*, 5 THE POLAR J., 247, 257 (2015).

¹²¹ Vrancken, *supra* note 119.

¹²² The Word Tourism Organization’s (WTO) goals are set in Article 3 of its statutes. The WTO aims to promote and develop tourism to contribute to economic development, “international understanding, peace, prosperity, and universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language or religion.” *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

Creating an international law encompassing all these characteristics is complicated, if not impossible.

The first legal tourism instrument was considered in 1925 and eventually manifested as the United Nations World Tourism Organization (WTO) that still exists today.¹²⁶ The WTO is the leading international forum for international tourism recommendations and guidelines.¹²⁷ The WTO has 158 nation members, 6 associate members, and more than 500 affiliated members—including private sectors and educational institutions.¹²⁸ In 2003, the WTO created the Global Code of Ethics for Tourism (GCET). The WTO regularly updates the GCET to adapt to the needs and problems of universal tourism.¹²⁹

Recommendations added to the GCET include the Accessible Tourism for All initiative, adopted in 2005; the Tourism Satellite Account: Recommended Methodological Framework, adopted in 2013; and most recently the International Year of Sustainable Tourism for Development initiative, adopted in 2017.¹³⁰ The WTO encourages the implementation of these legal instruments, but unlike UNCLOS and

¹²⁶ *Id.*; the first tourism legal instrument was the Covenant of the League of Nations convened by the International Union of Official Tourist Publicity Organization (IUOTPO). The British National Tourist Offices created the organization to campaign and advertise European tourism after World War I. The IUOTPO was reorganized into the International Union of Travel Organizations (IUTO) in 1947 and held General Assemblies with nineteen European countries, working closely with government agencies to revamp tourism in the wake of WWII. United Nation members and international tourism providers convened in 1963 at the U.N. Conference on International Travel and Tourism (UNCITT). Several years later the UNCITT established an organization, currently known as the United Nations World Tourism Organization. *Id.*

¹²⁷ *Who We Are*, UNITED NATIONS WORLD TOURISM ORG., <http://www2.unwto.org/content/who-we-are-0> (last visited Oct. 16, 2018).

¹²⁸ *Id.* Such as, the Tourism Bill of Rights and Tourist Code (TBRTC) adopted in 1985. This document recognizes a universal “freedom of movement without limitation, within the bounds of law” and a human right to time for rest and leisure. The TBRTC urges nations to create policies promoting domestic and international tourism and develop harmonious human and social relations between visitors and locals. *Id.*

¹²⁹ See generally *Resolutions on the Global Code of Ethics for Tourism*, UNITED NATIONS WORLD TOURISM ORG., <http://ethics.unwto.org/en/content/resolutions-global-code-ethics-tourism> (last visited Oct. 16, 2018).

¹³⁰ *Twelfth Meeting of the World on Tourism Ethics*, UNITED NATIONS WORLD TOURISM ORG., <http://ethics.unwto.org/event/twelfth-meeting-world-committee-tourism-ethics> (last visited Oct. 16, 2018); *Statistics*, UNITED NATIONS WORLD TOURISM ORG., <http://statistics.unwto.org> (last visited Oct. 16, 2018); *Measuring the Sustainability of Tourism*, UNWTO, <http://statistics.unwto.org/mst> (last visited Oct. 16, 2018).

other international organizations, does not require its members to ratify them.¹³¹

Unlike international Arctic laws and international maritime laws, tourism is largely regulated by nongovernmental private tourism organizations.¹³² Arguably, the most influential private international tourism organization is the World Travel and Tourism Council (WTTC).¹³³ Executives of international tourism corporations in transportation, travel agencies, accommodations, and other tourism industries lead the WTTC.¹³⁴ The WTTC lobbies government and international bodies against restrictive tourism regulations and laws.¹³⁵

Nation-states, the WTTC, and other tourism organizations consider legally binding international laws too restrictive and rigid to regulate international tourism in an effective and practical manner.¹³⁶ Nation states and the WTTC prefer voluntary standards and regulations because they are more flexible to the unique governments, economics, social diversity, and geographic biodiversity of the world.¹³⁷ However, without a central enforceable law, there is no uniform standard or recourse for tourism problems, and the WTTC cannot make real change in the Arctic or help conserve natural world attractions.

B. International Maritime Law

A specialized agency of the United Nations, the International Maritime Organization (IMO), develops and regulates international ship and vessel laws.¹³⁸ IMO laws are ratified by nations after

¹³¹ Vrancken, *supra* note 119. The WTO is the only global intergovernmental organization organizing tourism recommendations, codes, ethics, and standards. However, the WTO has established subcommittees and programs regarding tourism including the United Nations Development Programme, the United Nations Conference on Trade and Development, the United Nations Environment Programme: Guidelines for Biodiversity and Tourism Development, and the Commission for Sustainable Development. *Id.*

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *About WTTC*, WORLD TRAVEL & TOURISM COUNCIL, <https://www.wttc.org/about/> (last visited Dec. 2, 2017). The WTTC website states that the travel and tourism sector supports more than 292 million jobs and generates 10.2 percent of the global GDP. *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.* Other international organizations affecting tourism in their respective fields include the International Bank for Reconstruction, the World Health Organization, and the International Labor Organization—Hotels and Tourism Branch. Vrancken, *supra* note 119.

¹³⁷ Vrancken, *supra* note 119.

¹³⁸ *Introduction*, INTERNATIONAL MARITIME ORGANIZATION (Dec. 2, 2017), <http://www.imo.org/en/About/Pages/Default.aspx> [hereinafter IMO].

voluntarily adopting the UNCLOS.¹³⁹ The IMO is a forum for nations and international industries to convene, create, and maintain regulatory frameworks for the international ships, vessels, transit, and tourism.¹⁴⁰ As the most cost-efficient transport option, international shipping accounts for more than eighty percent of global trade.¹⁴¹ The IMO creates codes—including regulating ship design, construction, equipment, manning, operation, and disposal—ensuring safety, environmental protection, and energy-efficient industries.¹⁴²

The IMO has recently enforced a new regulatory framework for international ships from countries that have ratified the UNCLOS. The new framework is for polar regions and named the International Code for Ships Operating in Polar Waters (Polar Code).¹⁴³ The Polar Code applies to new ships constructed after January 1, 2017, and requires ships to comply with specific polar protections—including design, construction, equipment, operations, training, search and rescue, and environment protection—when operating in polar waters.¹⁴⁴ The Polar Code is mandatory for all ships traversing the Arctic and Antarctic waters; this new regulatory scheme is stricter than all previous international provisions to protect the Arctic.¹⁴⁵

¹³⁹ Ocean & Law of the Sea, *A Historical Perspective*, UNITED NATIONS (Dec. 2, 2017), http://www.un.org/depts/los/convention_agreements/convention_historical_perspective.htm.

¹⁴⁰ IMO, *supra* note 138.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ *Shipping in Polar Waters: Adoption of an International Code of Safety for Ships Operating in Polar Waters*, IMO (Nov. 22, 2017), <http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx>.

¹⁴⁴ *Id.* Related amendments include the International Convention for Safety of Life at Sea and the International Convention for Prevention of Pollution from Ships. Other multinational initiatives are followed by some of the eight Arctic nations. Five of the eight Arctic nations are actively limiting shipping and industry fishing by enforcing additional amendments such as the Circumpolar Action Plan for Polar Bears. Additionally, partnerships between Arctic and non-Arctic states have developed, such as the August 2015 Anchorage Conference on Global Leadership in the Arctic: Cooperation, Innovation, Engagement and Resilience, which highlighted the policy that culminated in the Paris Agreement signed a few months later. Interestingly, the United States has organized the most Arctic enterprises outside the Arctic Council and the IMO. Additionally, non-Arctic countries have joined some of the eight Arctic nations in environmental protection plans, including the Montreal Protocol on Substances that Deplete the Ozone Layer of 1987, the Stockholm Convention on Persistent Organic Pollutants of 2001, and the Minamoto Convention on Mercury of 2013. Young, *supra* note 66, at 210.

¹⁴⁵ *Id.*

Under the new law, existing ships must modify and meet the Polar Code rules before their next inspection date.¹⁴⁶ Therefore, all Arctic cruise ships from countries that have ratified the UNCLOS are bound by the newest IMO Polar Code. Further, in July 2018, Arctic cruise ship masters and deck officers will be required to follow the IMO's International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, which has specific requirements for polar travel and tourism safety.¹⁴⁷

The IMO has taken notice of cruise ship tourism and its potential effects on polar regions.¹⁴⁸ In 2017, the IMO adopted a subcommittee to create regulations specific to Arctic cruise ship tourism, the Organizations Maritime Safety and Marine Environmental Protection Committee (MEPC).¹⁴⁹ The MEPC will consider the upcoming Measures to Reduce Risks of Use and Carriage of Heavy Fuel Oil as Fuel by Ships in Arctic Waters in April 2018.¹⁵⁰ These measures were proposed by Finland, Germany, the United States, Canada, Iceland, the Netherlands, and Norway, and are supported by eight additional non-Arctic states with interest in the Arctic.¹⁵¹

C. International Arctic Law

In the twentieth and twenty-first centuries, Arctic nations and international legal organizations have overwhelmingly cooperated to create Arctic law.¹⁵² The Arctic Council (the Council) creates international Arctic laws and the Council members voluntarily adopt laws.¹⁵³ The Council secretariat is located in Tromsø, Norway, and is the highest forum for international cooperation between the Eight Arctic nations (A8) and Arctic communities on Arctic issues.¹⁵⁴ The

¹⁴⁶ *Milestone for Polar Protection as Comprehensive New Ship Regulations Come into Force*, IMO (Nov. 22, 2017), <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/02-Polar-Code.aspx>.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ Marcie Keever & John Kaltenstein, *Friends of the Earth Welcomes IMO Action on Arctic Heavy Fuel Oil Risk*, FRIENDS OF THE EARTH (Nov. 11, 2017), <https://foe.org/2017-07-friends-of-the-earth-welcomes-imo-action-on-arctic-hfo-risk/>.

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² Interview with Dr. Amy Merten, Chief, Spatial Data, Assessment and Restoration Division, NAT'L OCEANIC AND ATMOSPHERIC ASS'N, (Nov. 3, 2017).

¹⁵³ *The Arctic Council: A Backgrounder*, ARCTIC COUNCIL (Nov. 4, 2017), <http://www.arctic-council.org/index.php/en/about-us>.

¹⁵⁴ Young, *supra* note 66, at 209.

A8 are the United States, the Russian Federation, Canada, Norway, the Kingdom of Denmark, Greenland, Finland, Sweden, and Iceland.¹⁵⁵

Additionally, there are six permanent participants in the Council that have the same legal strength as the A8 and provide Arctic representation for Arctic indigenous peoples: the Aleut International Association, the Arctic Athabaskan Council, Gwich'in Council International, the Inuit Circumpolar Council, the Russian Association of Indigenous Peoples of the North, and the Saami Council.¹⁵⁶

The Council also contains six Working Groups that facilitate biodiversity, sustainable development, emergency response, and other practical Arctic issues: the Arctic Contaminants Action Plan; the Arctic Monitoring and Assessment Programme; the Conservation of Flora and Fauna; Emergency Prevention, Preparedness and Response Working Group; Protection of the Arctic Marine Environment; and the Sustainable Development Working Group.¹⁵⁷ Lastly, the Council admits interested non-Arctic states on an observer status.¹⁵⁸ The Council is the most recognizable forum and messenger for Arctic international cooperation and laws; however, it cannot and does not attempt to validate jurisdictional matters or economic issues.¹⁵⁹

¹⁵⁵ Every two years one of the A8 will hold Chairmanship of the Council. The Council Chairman is currently Finland for 2017–2019; Iceland will be the next country to assume the Chairmanship. The United States held the chairmanship from 2015–2017. *The Arctic Council: A Backgrounder*, ARCTIC COUNCIL (Nov. 4, 2017), <http://www.arctic-council.org/index.php/en/about-us>.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ Arctic Council Observers contribute to Arctic directives and provide support for working groups and task forces. *Id.*

¹⁵⁹ The Arctic Council is not an appropriate forum for international law disputes. Arctic land disputes are resolved under the UNCLOS framework and between the states through bilateral treaties. For example, the United States and Russia Bering's Chukchi Seas agreement of 1990, the Norway and Russian Barents Sea's agreement of 2010, and the current United States and Canada dispute of the Beaufort Sea Boundary and the Canada and Kingdom of Denmark dispute over Hans Island will likely proceed through a bilateral treaty negotiation. Additionally, the Arctic Council has little to no control over Arctic economic disputes. Economic disputes and agreements are resolved under bilateral agreements between state-owned enterprises, companies, private corporations, and government entities. For example, ExxonMobil, China National Petroleum Company, and Gazprom have bilateral agreements between Arctic states and private corporations concerning Arctic resources. Additionally, China and Greenland are currently deliberating mineral deposits and resources contracts, China and Iceland are discussing a shipping agreement in the Arctic, and the United States and China are developing a natural gas pipeline and shipping contract from Alaska. The economics of the Arctic are controlled by countries with the strongest capability to cultivate Arctic resources. Young, *supra* note 66, at 212.

The Arctic Council permanent working group, Protection of the Arctic Marine Environment (PAME), implements projects related to safe shipping and conserving marine environments.¹⁶⁰ PAME's Arctic Marine Tourism Project (AMTP) focuses on examining and encouraging sustainable tourism across the Arctic.¹⁶¹ The AMTP developed a ten-year guideline for the A8 and the Council members, from 2015 to 2025, focusing on marine-based Arctic tourism.¹⁶² The guidelines are published in the Arctic Marine Strategic Plan (AMSP).¹⁶³ The AMSP integrates marine-based tourism procedures regarding local, national, regional, and international tourism activities, taking into account the cultural well-being of Arctic communities and indigenous peoples, environmental issues, and economic enrichments of tourism.¹⁶⁴

Despite the Arctic Council's best efforts, the Arctic still suffers because there is no enforcement mechanism, international high seas police, or link between these organizations to implement and enforce procedures. Without strong enforcement, the Arctic cruise ship tourism industry will irreparably harm the Arctic.

III EFFECTS AND PROBLEMS OF ARCTIC CRUISE SHIP TOURISM

The blood of hibernating Arctic squirrels may supercool to minus 3 degrees, when it would normally congeal. The supercooled blood still flows, since it remains a liquid, but the slightest disturbance will cause it to freeze, killing the squirrel; therefore, you should not disturb hibernating Arctic squirrels.

—João Magueijo, *Faster than the Speed of Light*

Despite the best efforts of the Arctic Council, the UNCLOS, the IMO, the WTTC, and the WTO, the Arctic is harshly affected by

¹⁶⁰ For more information on PAME, see Arctic Marine Tourism Project, PAME (Oct. 25, 2018), <https://pame.is/index.php/projects/arctic-marine-shipping/arctic-marine-tourism-project-amtp-workshop-report>.

¹⁶¹ *Safe Shipping and Marine Environmental Protection*, ARCTIC COUNCIL (Nov. 29, 2017), <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/287-safe-shipping-and-marine-environmental-protection>.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.* Additionally, during Canada's chairmanship of the Arctic Council, the framework for a pan-Arctic network of marine protected Areas (MPAs) was developed to restore and protect marine biodiversity, ecosystems, and preserve cultural heritage and special natural features. *Id.*

tourism and the Arctic continues to melt. This fact has popularized two types of cruise ship tourism in the Arctic: *last chance tourism* and *conservation* or *ecotourism*. Last chance tourism—also called doomsday travel or vanishing-earth voyaging—is marketed by the loss of biodiversity.¹⁶⁵ It is a niche market focusing on destinations that are vulnerable and disappearing due to climate change and destructive human impact; it targets Australia’s bleached Great Barrier Reef and the vulnerable Galapagos, Maldives, and the Arctic.¹⁶⁶ Ironically, the more tourists visit these vulnerable attractions, the faster the attractions deteriorate due to the environmental strain of tourism, adding to their circular marketability.

Conversely, conservation tourism and ecotourism strive for sustainability and enhancing biodiversity.¹⁶⁷ However, conservation tourism and ecotourism are distinct from each other. Conservation tourism is focused on making a significant net positive contribution to biological diversity, whereas ecotourism strives to leave a destination as untouched and pristine as possible.¹⁶⁸ Both conservation tourism and ecotourism create high standards, which can be achieved only with intentionality by governments, international representatives, tour operators, and tourists.¹⁶⁹ Current global efforts for conservation and ecotourism are inadequately funded.¹⁷⁰ For example, in 2009, an estimated \$53 billion was needed globally to manage environmentally protected tourism areas, but only \$15 billion was made available.¹⁷¹

Ultimately, Arctic cruise ship tourism, whether marketed as last chance tourism or ecotourism, threatens the Arctic environment. However, tourism also brings economic enrichment to Arctic communities. This Section will discuss the positive and negative effects of Arctic cruise ship tourism.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ RALF BUCKLEY, CONSERVATION TOURISM 2 (Int’l Centre for Ecotourism Research, Griffith Univ. 2010).

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.* at 2–3. In comparison, in 2009, \$5 trillion funded global “economic stimulus” plans. *Id.*

***A. The Environment:
Flora and Fauna, Emissions, and Noise Pollution***

Cruise ship tourism negatively affects the Arctic environment.¹⁷² The exact environmental impacts of cruise ship tourism are largely speculative because, when measuring environmental impacts in the Arctic, cruise ships are lumped into shipping measurements and quantities. Although it is hard to isolate cruise ship emissions, the damage caused by international transit shipping is well documented.¹⁷³

Research shows that in the waters surrounding Europe, international transit shipping emits 1.7 million tons of sulphur dioxide (a greenhouse gas) per year.¹⁷⁴ This, other aerial emissions, and contaminants from around the world are significant because they ultimately travel with atmospheric air pressure systems to the Arctic.¹⁷⁵ Due to climate change, the Arctic ice coverage is declining.¹⁷⁶ In 2007, the annual ice loss was approximately ten times greater than that of the previous decade.¹⁷⁷ Arctic ice cover is highly reflective and will normally block pollution from entering the Arctic Ocean and reflect solar radiation to cool the ocean.¹⁷⁸ But when ice melts and more of the dark waters of the Arctic Ocean are exposed, the emissions are absorbed into the water and the water absorbs the solar radiation, warming the water.¹⁷⁹ The Arctic Ocean then emits the absorbed contaminants back into the atmosphere, thereby increasing chemical exchange, adding to the greenhouse gases warming the planet, affecting climate change and ultimately threatening the Arctic.¹⁸⁰ Once the ice cover diminishes past a certain point, the lack of ice reflection will result in a dramatic increase in temperature, drastically increasing climate change and affecting the planet at large: this is called the Albedo Effect.¹⁸¹

¹⁷² Samouladas, *supra* note 107, at Annex I.

¹⁷³ *Id.*

¹⁷⁴ *Book Navigations: Air Pollution from Ships*, TRANSPORT & ENVIRONMENT (Nov. 11, 2017), <https://www.transportenvironment.org/what-we-do/shipping/air-pollution-ships>.

¹⁷⁵ ANDREAS KRAEMER & ARNE RIEDEL, ARCTIC MARINE GOVERNANCE: OPPORTUNITIES FOR TRANSATLANTIC COOPERATION 32–33 (2014).

¹⁷⁶ *Id.* at 31.

¹⁷⁷ Ryan O’Leary, *Protecting the Arctic Marine Environment: The Limits of Article 234 and the Need for Multilateral Approaches*, 23 J. ENVTL. L. & PRAC. 288, 289 (2012).

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ KRAEMER & RIEDEL, *supra* note 175, at 33.

¹⁸¹ O’Leary, *supra* note 177.

Cruise ships touring the Northwest Passage add to the emissions and contaminants threatening the Arctic.¹⁸² In 2015, a regime to control and limit ship-sourced emissions was enforced under the IMO by implementing the International Convention for the Prevention of Pollution from Ships (MARPOL).¹⁸³ MARPOL is the main international convention preventing the pollution of marine environments by ships, whether polluted from ships' operational mechanisms or accidents.¹⁸⁴ MARPOL has a special classification for sea areas that need special attention called the Particularly Sensitive Sea Areas (PSSA).¹⁸⁵ In the PSSA, the IMO controls maritime activity more heavily, designates specific sea route measures, and regulates harsher shipping discharge and equipment requirements.¹⁸⁶ The PSSA are chosen if they fulfill a number of criteria, including

[e]cological criteria, such as unique or rare ecosystem, diversity of the ecosystem or vulnerability to degradation by natural events or human activities; social, cultural and economic criteria, such as significance of the area for recreation or tourism; and scientific and educational criteria, such as biological research or historical value.¹⁸⁷

Some PSSA include the Great Barrier Reef, Australia (1990); Malpelo Island, Columbia (2002); the sea around the Florida Keys, United States (2002); and the Galapagos Archipelago, Ecuador (2005).¹⁸⁸

Unfortunately, no parts of the Arctic Ocean have been added to the PSSA under MARPOL.¹⁸⁹ Adding the Arctic to this sensitive list will help limit damaging emissions in a vulnerable area.¹⁹⁰ Within the realm of international shipping emissions and disasters, Arctic cruise ships are a small contributor to Arctic marine and terrestrial environmental damage.¹⁹¹ However, because Arctic cruise ship tourism is becoming

¹⁸² KRAEMER & RIEDEL, *supra* note 175, at 31.

¹⁸³ *International Convention of Pollution from Ships*, IMO (Nov. 11, 2017), [http://www.imo.org/en/about/conventions/listofconventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-\(marpol\).aspx](http://www.imo.org/en/about/conventions/listofconventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-(marpol).aspx).

¹⁸⁴ *Id.*

¹⁸⁵ *Particularly Sensitive Sea Areas*, IMO (Mar. 29, 2018), <http://www.imo.org/en/OurWork/Environment/PSSAs/Pages/Default.aspx>.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ Samouladas, *supra* note 107, at 55.

increasingly popular, regulating cruise ships and small vessels under MARPOL restrictions will keep the Arctic healthier longer.¹⁹²

Emissions and oil spills are not the only environmental issue.¹⁹³ The possible introduction of invasive marine species by transference and pollutants from waste discharge from cruise ships is a concern.¹⁹⁴ If an invasive species were able to survive the Arctic chill, it could change or destroy the Arctic food web affecting Arctic mammals and Arctic communities.¹⁹⁵ The Arctic environment relies on a complex system of interdependencies within the air, the ocean, and climatological characteristics.¹⁹⁶ Due to the Arctic's unique atmosphere—low temperatures in the air, ground, and water—pollutants and chemicals have a longer life and remain stagnant.¹⁹⁷ Chilled and stagnant contaminants have a slower degradation and will accumulate in the Arctic Ocean to a toxic level over time, threatening animals and Arctic communities.¹⁹⁸

Environmental impacts are significant in the Arctic Ocean because it is small, fragile, and covers only 5.4 million square miles; comparatively, the Atlantic Ocean is approximately 41 million square miles.¹⁹⁹ The Arctic Ocean is home to only 600 species of animals, including the polar bear, walrus, beluga whale, and narwhal.²⁰⁰ The marine ecosystem is relatively young, fragile, and simple.²⁰¹ The marine food web is primarily based on the production of algae, consumed by zooplankton, which are eaten by fish, which are consumed by seabirds and mammals.²⁰² Lastly, Arctic communities rely on seabirds and mammals to survive.²⁰³ An invasive species, bacteria, or pollutant able to withstand the Arctic chill has little

¹⁹² *Id.*

¹⁹³ See generally *id.*

¹⁹⁴ Kristen Minogue, *Melting Arctic Opens New Passages for Invasive Species*, SMITHSONIAN (Mar. 29, 2018), <https://newsdesk.si.edu/releases/melting-arctic-opens-new-passages-invasive-species>.

¹⁹⁵ *Id.*

¹⁹⁶ KRAEMER & RIEDEL, *supra* note 175, at 31.

¹⁹⁷ *Persistent Pollutants in the Polar Region*, INTERNATIONAL POLAR FOUNDATION (Mar. 29, 2018), http://www.educapoles.org/assets/uploads/teaching_dossiers_files/edd_20_en.pdf.

¹⁹⁸ *Id.*

¹⁹⁹ MCCANNON, *supra* note 10, at 16.

²⁰⁰ *Id.*

²⁰¹ KRAEMER & RIEDEL, *supra* note 175, at 22.

²⁰² *Id.*

²⁰³ *Id.*

competition and need only interrupt algae growth to destroy the Arctic food web.²⁰⁴

Additionally, humans can easily destroy the Arctic on foot. Arctic cruises are accompanied by helicopter flights or zodiac rides allowing tourists to hike remote and beautiful Arctic areas.²⁰⁵ Unfortunately, Arctic flora and archaeological sites are fragile, and a human's presence can easily destroy them.²⁰⁶

Noise pollution from helicopters and cruise ships create noise disturbances on land, in the air, and in the water. Human and machinegenerated noises are perceived by cetaceans—dolphins, narwhals, pinnipeds, fishes, and invertebrates.²⁰⁷ Sonar for military purposes, is one of the most controversial sources.²⁰⁸ Data on the impact of ocean noise is still incomplete.²⁰⁹ However, recent studies from the Acoustic Thermometry of Ocean Climate (ATOC) show that cetaceans are especially vulnerable to noise pollution because anthropocentric and human-made noise cause physical changes and behavioral impacts, including death due to stranding.²¹⁰ For example, the Arctic bowhead whale sings to interact with the environment and its fellow mammals.²¹¹ In the Arctic, due to the unique temperature and salinity of the water, bowhead whales can sing and communicate with

²⁰⁴ The killer whale or orca is an example of an invasive species due to climate change. Because of the melting ice and warmer waters, killer whales are able to reach farther north, threatening mammals who had previously peacefully lived without predators. Killer whales are changing the mammologist hierarchy of the Arctic—killer whales find narwhals a tasty snack. *Killer Whales Attack Pod of Narwhals*, OREGON PUBLIC BROADCASTING (Dec. 5, 2017), <http://www.pbs.org/wnet/nature/invasion-killer-whales-killer-whales-attack-pod-narwhals/11165/>.

²⁰⁵ Janet Davison, *Snorkeling in Icy Waters and Hiking Remote Terrain: Adventure Tourism Arrives in the Vulnerable Arctic*, CBC.CA (Oct. 9, 2017), <http://www.cbc.ca/news/canada/adventure-tourism-north-1.4279932>.

²⁰⁶ Samouladas, *supra* note 107, at 57.

²⁰⁷ Smita Singla, *Effects of Noise Pollution from Ships on Marine Life*, MARINE INSIGHT (Dec. 5, 2017), <https://www.marineinsight.com/environment/effects-of-noise-pollution-from-ships-on-marine-life/>.

²⁰⁸ Karen N. Scott, *International Regulation of Undersea Noise*, 53 INT'L & COMP. L.Q. 2, 287 (2004).

²⁰⁹ *Id.*

²¹⁰ Hansen Johnson, *The Importance of Sound for Bowhead Whales*, SCIENTIFIC NORDIC (Mar. 29, 2018), <http://science nordic.com/importance-sound-bowhead-whales>. See generally Whitlow W. L. Au et al., *The Effects of the Acoustic Thermometry of Ocean Climate Signals on Dolphins and Small Whales*, 98 J. ACOUSTICAL SOC'Y AM. 2940 (1998).

²¹¹ *Id.*

each other over 60-mile distances.²¹² Uninterrupted singing is essential when navigating their 20,000-pound and 60-foot long bodies beneath thick ice to find cracks of open water and fresh air to breathe.²¹³ Cruise ships and tourism noise pollution can significantly compromise their communications and navigation.²¹⁴

Tracking the progress of Arctic cruise ship tourism and its associated damage is difficult.²¹⁵ Current Arctic tracking systems focus on larger impacts—shipping catastrophes, large oil spills, or geological phenomena.²¹⁶ The geographic information system (GIS) mapping software corporation, Environmental System Research Institute (ESRI), develops and manages in-time maps tracking the Arctic.²¹⁷ *The Arctic Risk Map* is an ESRI Arctic mapping system based in Norway, and its online application follows oil and gas activities, shipping routes, ice conditions, and wildlife in the Arctic.²¹⁸ GIS uses satellites, ship beacons and receivers, and weather projections to follow disasters, animals, pollutants, and ships.²¹⁹ ESRI contracts with governments around the world to create in-time mapping systems used for emergency response around the United States.²²⁰

In 2012, the University of New Hampshire, through the Coastal Response Research Center and the National Oceanic and Atmospheric Association, partnered with ESRI to create an Arctic-specific web-based emergency response GIS system called Environmental Response Management Application (ERMA).²²¹ ERMA was created in response to the Deepwater Horizon and Exxon Valdez disasters, but was most recently used to track hurricanes Irma and Maria in the fall of 2017.²²² It integrates real-time statistics onto a single interactive map, providing in-time communication, coordination, and visualization for emergency

²¹² *Id.*

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ Samouladas, *supra* note 107, at 42.

²¹⁶ *Arctic Risk Map Details Environmental Vulnerability*, ESRI (Dec. 5, 2017), <http://www.esri.com/esri-news/arcnews/summer16articles/arctic-risk-map-details-environmental-vulnerability>.

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *Id.*; see also Interview with Dr. Amy Merten, *supra* note 152.

²²¹ *Arctic Information*, ERMA, <https://erma.noaa.gov/arctic/erma.html#/layers=3+12864+676+8480&x=-161.91096&y=64.76126&z=4&panel=legend> (last visited Oct. 25, 2018).

²²² *Id.*

responders and environmental stakeholders.²²³ ERMA is part of the Interagency Working Group on Coordinating Domestic Energy Development and Permitting in Alaska initiative to coordinate safe and responsible developments in Alaska; the Obama Administration initiated this program.²²⁴

ESRI and ERMA provide aerial data for natural disasters in the Arctic.²²⁵ When a catastrophic event occurs in the Arctic, ERMA informs authorities with the location and extent of the disaster.²²⁶ After information is shared, international, regional, and local authorities will be alerted to the problem and begin response procedures.²²⁷ Depending on the location of an environmental disaster in the Arctic, different countries and organizations will respond.²²⁸ For example, if a disaster strikes in the Chukchi Sea—between Russia and the United States—a prearranged, bilateral agreement and clean-up cooperation is initiated.²²⁹ If disaster strikes in international waters, a multinational Arctic search and rescue plan is implemented.²³⁰ The Arctic Council organizes multinational emergency response teams under the permanent working group, Emergency Prevention Preparedness and Response (EPPR).²³¹ However, the ship and accompanying industry causing the disaster will be responsible for the response cost and long-term environmental clean-up.²³²

Arctic cruise ship tourism negatively affects the Arctic through areal emissions, oceanic pollutants, noise pollution, and the possibility of introducing an invasive species.²³³ More research and awareness is needed to understand and counter the environmental damage of cruise

223 *Id.*

224 *New Tool for First Responders in the Arctic: Arctic ERMA*, ERMA (Oct. 25, 2018), <https://www.arcus.org/witness-the-arctic/2013/2/article/19951>. ERMA's many partners can be found on their website. *Id.*

225 *Id.*

226 Interview with Dr. Amy Merten, *supra* note 152.

227 *Id.*

228 Interview with Mark L. Everett, Incident Management & Preparedness Advisor, Seventeenth Coast Guard Dist., (Nov. 21, 2017).

229 *Id.*

230 *Id.*

231 E-mail from Raymond Reichl, LCDR, District Seventeenth External Aff. Officer, to Lauren Lewis, Law Student at Univ. of Oregon Sch. of L., (Nov. 17, 2017) (on file with author or University of Oregon email server).

232 *Id.*

233 See generally Samouladas, *supra* note 107, at 37.

ship tourism in the Arctic. Until a universally ratified plan is adopted to pragmatically prevent environmental damage, using ESRI and ERMA to track and respond after catastrophes strike is the only available option.

***B. Arctic Communities:
Disruption and Enrichment, Disasters and Response***

Arctic cruise ship tourism can bring enrichment and economic benefits to rural Arctic communities, but hosting cruise ship visitors also causes social and cultural disruptions. To combat disruptions and spread economic benefit between rural communities, tactful local and regional development plans, which create healthy and sustainable nature-based Arctic cruise ship tourism, are required.²³⁴ When the *Crystal Serenity* visited the Canadian town of Ulukhaktok, with a year-round population of 400 people, it allowed only 150 passengers into town at a time to control damage and disruption.²³⁵ Cruise ships and rural Arctic communities need to communicate and spread out their landings so that towns are not overrun with pollution and an entire region can enjoy economic enrichment from tourism.

Arctic communities and the cruise ship industry must be prepared for the economic consequences of a catastrophic cruise ship emergency. In 2016, a joint American and Canadian team practiced exercises in an American Arctic community to prepare for search and rescue emergency scenarios.²³⁶ The exercise, called the *Arctic Chinook*, practiced a scenario where a cruise ship required evacuation of 200 passengers and crew in remote Alaskan waters. The exercise was planned in anticipation of the *Crystal Serenity*.²³⁷ The exercise took place in Kotzebue, Alaska, located on the Northwest Arctic Borough and included more than 1,000 personnel from U.S. military

²³⁴ Albina Pashkevich, Olof Sthernström & Linda Lundmark, *Nature-Based Tourism, Conservation and Institutional Governance: A Case Study from the Russian Arctic*, 6 THE POLAR J. 112–30, 113 (2016).

²³⁵ Nunez, *supra* note 14.

²³⁶ Reichl, *supra* note 231.

²³⁷ *Id.*

organizations, Canadian military organizations, and local Arctic communities.²³⁸ This exercise was sponsored by the Arctic Council.²³⁹

In this scenario, medical response was tested, and actors feigning injuries were evacuated by helicopter from the cruise ship to Nome, Alaska, and Kotzebue Maniilaq Hospital—the closest medical treatment center.²⁴⁰ The exercise also tested how fast supplies needed to sustain life could be shipped to remote Arctic villages in severe weather.²⁴¹ The exercise practiced pushing pallets of supplies off a C-17 Globemaster III plane, but during the exercise the weather was too severe and the supplies were delivered by helicopter as an alternative.²⁴² Each pallet is made “to sustain life for twenty-four to forty-eight hours in the severe Arctic environment.”²⁴³

This exercise demonstrated how a cruise ship emergency with more than 200 passengers and crew would require thousands of people, extensive resources, international willingness, and readiness for an emergency response.²⁴⁴ *Arctic Chinook* also revealed the importance and need for emergency response support and infrastructure in rural Arctic communities and the necessity for Arctic countries to work together in an accident.²⁴⁵ Admiral Robert Papp of the U.S. Coast Guard, Special Representative for the Arctic, found the exercise was necessary because:

People have been searching for an Arctic shorter sea route for about 500 years, and the reality is that it is becoming true and we need to be ready for the increase in human activity in the Arctic routes The U.S. has to be prepared for the possibility of accidents occurring.²⁴⁶

Arctic cruise ship tourism can enrich small communities; however, careful planning and negotiations between international, regional, and local tourism are needed. Careful and tactful planning must address the

²³⁸ Tech. Sgt. John Gordinier, *Preparing for the Worst Through Practice: Exercise Arctic Chinook 2016*, U.S. Northern Command (Mar. 29, 2018), <http://www.northcom.mil/Newsroom/Article/927866/preparing-for-the-worst-through-practice-exercise-arctic-chinook-2016/>.

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ *Id.*

²⁴² *Id.*

²⁴³ *Id.*

²⁴⁴ *Id.*

²⁴⁵ *Id.*

²⁴⁶ *Id.*

distribution of economic benefits; one rural community should not monopolize the industry. Each Arctic community, whether a tourism hub or not, needs to plan for emergencies. Until all the Arctic ice has melted, a cruise ship crash is predictable.²⁴⁷

IV FUTURE ARCTIC CRUISE SHIP TOURISM LEGISLATION

O, how glorious would it be to set my heel upon the Pole and turn myself 360 degrees in a second.

—Joseph Banks, Arctic Explorer (1620–1743)

As seen above, current legal frameworks fail to address the vulnerabilities of high Arctic international waters and fail to create special and consistent regulations for ship navigation in fragile and isolated Arctic conditions and areas.²⁴⁸ Additionally, current international law has few or no binding international regulations on oil and gas extraction.²⁴⁹ Although transboundary agreements between coastal nations are abundant, they lack international coordination.²⁵⁰ Lastly, current international laws lack transboundary ecosystem-based management mechanisms.²⁵¹ Coastal states have the opportunity to create their own Marine Protected Areas and Environmental Impact Assessments but are also not internationally coordinated.²⁵²

To fix this disjointed system, either a central international legal regime or a linking facilitator is needed to combine and enforce the many international legal regimes and organizations regulating the Arctic cruise ship tourism industry. Segregated legal regimes will cause the Arctic to continue to suffer and deteriorate. In coordination, all the legal regimes may be able to mitigate the environmental impacts of Arctic cruise ship tourism.

Changing the status quo in the Northwest Passage and Arctic shipping routes will be expensive and politically taxing. The future of the Arctic depends on a reliable and enforceable legal regime that

²⁴⁷ JENNIFER HILL & TIM GALE, ECOTOURISM AND ENVIRONMENTAL SUSTAINABILITY PRINCIPLES AND PRACTICE 90 (Farnham: Ashgate Publishing Ltd 2009).

²⁴⁸ Emily Hildreth, *Holes in the Ice: Why a Comprehensive Treaty Will Not Succeed in the Arctic and How to Implement an Alternative Approach*, 3 Y.B. POLAR L. 545, 559 (2011).

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.*

²⁵² *Id.* at 559–60.

implements conservation laws and programs. This Section discusses three potential legal regimes that could be applied to Arctic shipping routes and the Northwest Passage: the Article 43 Model, the Seaway Model, and the Arctic National Bank.

A popularly discussed model to regulate the Arctic is an Arctic Treaty System organized similar to the Antarctic Treaty System.²⁵³ However, an Arctic Treaty System is not a practical solution because it only creates another document, additional amorphous association, and would not provide real change or legal enforcement.²⁵⁴ Therefore, it will not be discussed in this Comment.

A. Article 43 Model

The Article 43 Model is a tool of the UNCLOS rarely used or implemented.²⁵⁵ Adopted by the UNCLOS in 1982, Article 43 established a balance between the interests of the implementing states bordering international straits and the states using the international straits.²⁵⁶ Article 43 of UNCLOS states, “User States and States bordering a strait should by agreement cooperate: (a) in the establishment and maintenance in a strait of necessary navigational and safety aid or other improvements in aid of international navigation; and (b) for the prevention, reduction and control of pollution from ships.”²⁵⁷

Article 43 is a burden sharing regime that organizes and controls an international strait.²⁵⁸ This mechanism requires parties using a strait to take responsibility for resource-related issues and commit as a shareholder in the productivity of the strait.²⁵⁹ For example, oil industries using the international strait would become shareholders in the strait. By becoming shareholders, these oil industries would be incentivized to keep the strait healthy and usable for their own industry

²⁵³ See generally *id.*

²⁵⁴ Jeffrey Parkey, *Assessing Institutional Alternatives for Future Northwest Passage Governance*, 32 AM. REV. CANADIAN STUD., 171–94, 188 (2012). Emily Hildreth discusses in depth why the Antarctic Treaty System should not be applied to the Arctic. See Emily Hildreth, *supra* note 248, at 545.

²⁵⁵ HUGO CAMINOS & VINCENT P. COGLIATI-BANTZ, THE LEGAL REGIME OF STRAITS: CONTEMPORARY CHALLENGES AND SOLUTIONS 371 (2014).

²⁵⁶ *Id.*

²⁵⁷ UNCLOS, *supra* note 76, art. 35.

²⁵⁸ CAMINOS & COGLIATI-BANTZ, *supra* note 255.

²⁵⁹ Bernard Oxman, *Observations on the Interpretation and Application of Article 43 of UNCLOS with Particular Reference to the Straits of Malacca and Singapore*, 2 SING. J. INT'L & COMP. L. 408, 416 (1998).

and gain capital from others.²⁶⁰ This regime encourages inclusive participation and funding by all users of the strait.²⁶¹

Despite there being thirty-two major international straits connecting the seven continents and the world,²⁶² Article 43 was not applied until 2006.²⁶³ In 2006, the Straits of Malacca and Singapore adopted Article 43 after battling high seas piracy, pollution, and political terror that affected the security of oil shipments passing through the strait.²⁶⁴ Indonesian, Malaysian, and Singaporean navies worked together to operationalize Article 43 and created a Cooperative Mechanism that authorized funds and assistance to the strait.²⁶⁵ The straits' shareholders developed infrastructure, clean-up projects, and security, and provided awareness for projects.²⁶⁶ Under Article 43, funds are encouraged by strait users and not required, but due to the usefulness and the need of this strait, voluntary funds have easily been collected.²⁶⁷

The Article 43 Model would be a positive standard for the Northwest Passage and other Arctic passageways.²⁶⁸ Burden-sharing instruments like Article 43 are positive because they reduce tensions and resolve conflicts through a business model where shareholders strive to achieve a similar outcome—free and sustainable navigability through a strait—essentially giving each user an equal voice.²⁶⁹ However, this model would change the power balance and control that Canada and the United States have over the Northwest Passage. This model would equalize and relinquish the control that Canada and the United States have over the Northwest Passage's entrance and exit to whomever is interested in investing in the passage. Additionally, the funding necessary to establish a successful Article 43 Model burden-sharing mechanism is generated voluntarily, and therefore does not guarantee sufficient funds or sustainability.²⁷⁰

260 CAMINOS & COGLIATI-BANTZ, *supra* note 255, at 180.

261 Parkey, *supra* note 254, at 180.

262 *What Is a Strait?*, QUICKGS (Dec. 5, 2017), <http://www.quickgs.com/major-straits-of-world/>.

263 Parkey, *supra* note 254, at 177.

264 *Id.*

265 *Id.*

266 *Id.*

267 *Id.*

268 *Id.*

269 *Id.*

270 *Id.*

B. Seaway Model

Another potential Northwest Passage model is the Seaway Model.²⁷¹ This model is based on the joint internal water approach that Canada and the United States share in the Great Lakes.²⁷² The Seaway operation in the Great Lakes is a joint Canadian and American shipping authority.²⁷³ It is staffed by an equal number of American and Canadian personnel who work together to operate and administer shipping laws and conduct in the Great Lakes.²⁷⁴ If applied to the Northwest passage, the Seaway Model would create a similar bilateral agreement between the United States and Canada.

A Seaway Model agreement would concede that the Northwest Passage is sovereign Canadian waters and the United States would lose political control.²⁷⁵ The Seaway Model would create an equitable Canadian and American governance of the Northwest Passage.²⁷⁶ This equitable governance would give Canada and the United States complete control of the Northwest Passage and any other passages above Canada.²⁷⁷ This model would be good for the United States and Canada, but would likely be universally detested by the international maritime community.²⁷⁸

C. Arctic Development Bank

The last solution discussed in this Comment is the creation of an Arctic Development Bank (ADB).²⁷⁹ A multilateral development bank model, like the World Bank, would be a vehicle to raise capital for Arctic infrastructural investments.²⁸⁰ An ADB would create a public-private partnership and use an international development bank model that replicates the membership structure of other Arctic institutions.²⁸¹

²⁷¹ *Id.* at 180.

²⁷² *Id.*

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ *Id.*

²⁷⁷ *Id.*

²⁷⁸ Bing Bing Jia, *The Northwest Passage: An Artificial Waterway Subject to a Bilateral Treaty Regime?*, 44 OCEAN DEV. & INT'L L. 2, 123–44, 143 (2013).

²⁷⁹ See Alan Gill & David Sevigny, *Sustainable Northern Development: The Case for an Arctic Development Bank*, CENTRE FOR INT'L GOV. INNOVATION PAPERS No. 54 (2015).

²⁸⁰ *Id.* at 1.

²⁸¹ *Id.* at 7.

The Arctic Council would be the most logical choice. An ADB would adopt the current Arctic Council members and expand its membership to non-Arctic nations and Arctic Council observers; this would demonstrate a global commitment to promoting sustainable Arctic development.²⁸² Additionally, an ADB using private oil, gas, and tourism sector funds would increase transparency and accountability in these industries because their funding would be conditional on safe, environmental, and sustainable practices and procedures.²⁸³

An ADB would address specific infrastructure needs, resource development, and sustainable development in Arctic shipping.²⁸⁴ A successful ADB would include advancement and growth opportunities for circumpolar communities; this would require indigenous communities to be engaged in the projects and strategies.²⁸⁵ An ADB would also undertake social impact analyses and pursue innovative approaches to promote environmentally sustainable developments.²⁸⁶

An ADB is the best and easiest solution to link the many international Arctic legal regimes for three reasons: (1) money is a strong motivator; (2) it invites and uses public Arctic nation funds and private industrial funds, coordinating and providing more money than any other regime possible could; and (3) an ADB is flexible, easily mobilized, and will increase sustainable environmental cooperation in the Arctic.²⁸⁷

CONCLUSION

When the corpses of [Sir John] Franklin's officers and crew were later discovered, miles from their ships, the men found to have left behind their guns but had lugged such essentials as monogrammed silver cutlery, a backgammon board, a cigar case, clothes brush, a tin of button polish, and a copy of The Vicar of Wakefield. These men may have been incompetent bunglers, but, by God, they were gentlemen.

—Anne Fadiman, *Ex Libris: Confessions of a Common Reader*

Accelerated with modern climate change and melting ice, the Arctic is a fast-paced legal arena. When the Northwest Passage was

²⁸² *Id.*

²⁸³ *Id.* at 6.

²⁸⁴ *Id.* at 7.

²⁸⁵ *Id.*

²⁸⁶ *Id.*

²⁸⁷ See, e.g., *id.*

discovered, the Arctic became a hotbed of industrial and military opportunity, making the race to the North Pole no longer a gentlemen's rivalry. The Cold War race to capture the North Pole and the Arctic created lasting hostilities that still exist. However, in the twenty years since, Arctic cooperation has regained some harmony. Through the Arctic Council and numerous other international organizations, the Arctic nations have overwhelmingly cooperated to create the international organizations that operate in the Arctic today. Unfortunately, these international organizations work independently. This independent, uncoordinated work leads to unenforceable and unsatisfactory results.

The current international legal regime is not sustainable. Without a legal regime capable of enforcing sustainable tourism and shipping regulations, the Arctic will lose its health, attractiveness, and, eventually, its cruise ship tourism industry. To sustain an environmentally healthy Arctic cruise ship tourism industry, uniform conservation regulations and enforcement are needed.

This Comment has considered three models that could be applied to the Northwest Passage and other Arctic passageways to install a legal institution capable of conservation regulations and enforcement. Whether these three models are applied, or another is created, without a doubt, a stricter legal institution is required. As climate change, tourism, and shipping create dire effects in the Arctic, it is no longer a gentlemen's competition to bungle. Something must change.

But how can we inspire change? The narwhals' docility and adorableness is the answer to the Arctic. It all relies on the narwhal, a charismatic megafauna capable of pulling on the heartstrings of the world and convince it to care about the Arctic. Popular awareness and political pull is the only way to change the Arctic legal regime. So, watch Will Ferrell's movie, *Elf*, and when you see the animated narwhal, think of the Arctic, research the Arctic, fall in love with the Arctic and narwhals, call your senator, protest peacefully, and practice conservation and ecotourism. If something does not change, and change soon, no one will see the *unicorn of the sea*, and the narwhal will revert to a fictional character and myth.

