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THE LAW OF THE SEA AND LNG: CROSS-BORDER LAW AND POLITICS OVER HEAD HARBOR PASSAGE

*James Kraska**

I. INTRODUCTION

A. The Political Context

The United States and Canada are at an impasse over plans by American developers to introduce a new supply of liquefied natural gas (“LNG”) into the United States through proposed port terminals along the Saint Croix River, which runs between the Province of New Brunswick and the State of Maine. The disagreement implicates the law and politics surrounding a new source of clean energy for the region, maritime security, Native American tribal sovereignty, marine environmental protection in the unique Bay of Fundy, bilateral economic relations, and high-level diplomacy between Ottawa and Washington. Ships, including LNG tankers, bound for United States ports on the Maine side of the river may reach port only via transit through Canadian waters. Thus, without the cooperation or at least acquiescence of Canada, the terminals and ports of Maine along Passamaquoddy Bay, are entirely zone-locked—meaning that without access to the Canadian territorial sea of Passamaquoddy Bay, the ports are locked to maritime traffic.

The controversy comes at a time when bilateral relations generally are quite good. United States-Canadian foreign relations have been unusually

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warm in recent years, despite the persistent annoyance of a handful of irritating issues. The United States has worried Canadian corporations doing business in the United States with the “Buy American” legislation, while Canada has frustrated United States officials who say their northern neighbor is a haven for illegitimate file-sharing websites that violate intellectual property laws.¹ New emissions regulations in Quebec impose costs on Canadian consumers that are not synchronized with the United States approach, raising costs for Canadian consumers who flee across the border for bargains. But the two nations also share numerous responsibilities for continental security, with the North American Defense Command having served as a cornerstone of strategic stability for half a century. Finally, Canada has been a strong partner in the war against al-Qaeda and Islamic extremism, sending forces to support NATO operations in Afghanistan.

But the dispute over transit rights through Passamaquoddy Bay is just one of a handful of disagreements between Canada and the United States. The two neighbors also remain at odds over the legal status of the waters of the Northwest Passage and economic jurisdiction over a 6,000 square mile pie slice-shaped segment of the Beaufort Sea. But the ability of foreign-flagged shipping to routinely utilize the Northwest Passage could be decades away. Similarly, in 2009 Canada updated its Arctic Waters Pollution Prevention Act to tighten its regulatory grip over the waters of the Canadian Arctic out to 200 nautical miles from shore, but for now there is little practical effect. Perhaps a more pressing concern is the disagreement over the proposed development of LNG terminals on the shore of Maine, which comes at a time when oil is rising in price and the attraction of clean-burning natural gas is becoming more apparent.

The vessel transits for the LNG terminals would require LNG tankers sailing through Head Harbor Passage, which provides the only connection for large ships between the Atlantic Ocean and the east coast of Washington County, Maine. As such, the Canadian passage is important to Maine ports and the greater Maine economy. Although the ports would be conduits for comparatively clean and efficient natural gas for Maine residents, the mostly Canadian opposition rejects the plans purportedly out of concern for the fragile nature of the marine environment. Much of the objection, however, has nothing to do with concern over the environment and centers on a sort of reactionary nostalgia and resistance to change. Thus, one of the most challenging dilemmas between satisfying the energy needs of homes and industries is juxtaposed against difficult trade-offs with preserving the natural environment, or merely preserving a rural sensibility.

¹ John Ivison, *End Near for “Buy American;” Obama to Use Executive Power to Skirt Rule: Sources*, NAT’L POST, Jan. 28, 2010, at A4.

Two United States ventures have plans to locate LNG terminals on the American side. Downeast LNG (“DELNG”) seeks to develop a terminal at Robbinston, Maine and North East Energy Development Company LLC seeks to place a terminal at Red Beach in Calias, Maine. Both developments would be situated on the Maine side of the Saint Croix River separating the two nations. The terminals would be supplied by three hundred meter long LNG tanker vessels that would be required to snake through Canadian waters and thread Head Harbor passage before landing at terminals in United States waters. Head Harbor Passage lies between the Canadian islands of Campobello and Deer Island. Inexplicably, a similar LNG terminal planned for Providence, Rhode Island was withdrawn after opposition groups along Narragansett Bay defeated the plan in the state legislature.² (Thus, the nation’s smallest state, with one of the highest unemployment rate in the country, shot down a promising LNG development in favor of continued reliance on dirty heating oil from overseas).

Against this backdrop, Canada is pressing ahead with the Canaport LNG terminal, owned by Irving Oil, Ltd., a Canadian family-owned company, in nearby Saint John, New Brunswick. Canaport will market natural gas across the border to the same people in Maine that would benefit from the United States LNG terminals. The Canadian initiative strikes some Americans as an exercise in economic nationalism and cross-border rent seeking at the expense of Maine consumers. Many Canadians object to that characterization because they say the Canaport terminal, thirty miles away from the border area, is more easily accessible by large shipping and is located farther from the fragile Passamaquoddy Bay ecosystem. Furthermore, the United States terminals, Canada suggests, would impose environmental, economic, and security costs on New Brunswick, whereas all of the benefits of the facilities and shipping would inure to the State of Maine. The complex horizontal and vertical interaction among the political players in the disagreement, which include businesses as well as local, state and provincial, and national governments, color the debate.

Shipping carriers bound for the proposed LNG terminal on the coast of Maine first would have to transit Canadian national waters before entering United States waters at the confluence of Friar Road, and then proceed into the Saint Croix River. There may be some good faith disagreement over the legal status of the Canadian waters. The waters are either Canadian territorial waters – that is, territorial seas – or Canadian internal waters. The idea has gained traction in Canada that if Canada can make a claim that the waters are

² I live on Conanicut Island in Rhode Island, which is situated in the middle of Narragansett Bay. The proposed LNG terminal at Mount Hope Bay and an onshore facility in Fall River, Massachusetts, has divided communities along the shipping route through Narragansett Bay.

historic internal waters, then foreign-flagged ships could be banned from transiting them. This is analogous to some faulty arguments made by Canada in order to control foreign-flagged shipping throughout the Northwest Passage, and it is not persuasive in either context. The question is not dispositive, or even necessarily relevant, however, to solving the legal questions concerning rights of transit by United States-bound shipping. Regardless of whether the Canadian waters are territorial seas or internal waters, there is no question that Canada exercises sovereignty over them.

Since the critical legal issue is whether tanker ships bound to or departing from United States ports in Maine may transit Canadian waters, most debate has focused on the characterization of the waters of Head Harbor Passage. Although the legal character of the waters is important in some analysis because different rules apply to foreign-flagged vessels in each case, for purposes of this study the character of legal ownership, or even extent of Canadian regulatory competence over the waters, is less materially relevant. Whether the waters are internal waters or territorial seas does not obviate the right of foreign-flagged ships to transit them, it merely changes the navigational regime that applies to such ships.

The United States has asserted that Head Harbor Passage is a strait used for international navigation and that the navigational regime of non-suspendable innocent passage applies in the strait. The United States position is legally correct, and the navigational regime that applies is one of innocent passage:

Under article 45(1)(b) [of the 1982 United Nations Convention on the Law of the Sea], the regime of innocent passage, . . . applies in straits used for international navigation that connect a part of the high seas or an exclusive economic zone ("EEZ") with the territorial sea of a coastal State. . . . These so-called "dead-end" straits include Head Harbor Passage leading through Canadian territorial sea to the United States' Passamaquoddy Bay.³

The Canadian government has obliquely indicated acceptance but officially it considers the area of the Bay of Fundy, and presumably Passamaquoddy Bay and the associated waterway of Head Harbor Passage, to be within the internal waters of Canada.⁴ Canada also has tended to declare that the waters constitute "Canadian waters," perhaps purposefully obfuscating which specie

³ United Nations Convention on the Law of the Sea, at 19, Oct. 6, 1994, S. TREATY DOC. NO. 103-39 (1994).

⁴ Letter from the Gov't of Can., Dep't of External Affairs, Bureau of Legal Affairs (Dec. 17, 1973), *reprinted in* 12 CAN. YEARBOOK OF INT'L L. 277, 279 (1974).

of national (Canadian) waters it refers – internal waters or territorial seas. Some possess the false sense that the issue is important under the theory that if the waters of Head Harbor Passage constitute internal waters, then it follows that the international right of innocent passage does not apply. Although this study concludes that the waterway of Head Harbor Passage is most accurately characterized as territorial seas (overlapped by the navigational regime appurtenant to a dead-end strait—innocent passage that may not be suspended by the coastal state), it also makes the case that the legal character of the water as either internal water or territorial sea is immaterial to the conclusion that the passage constitutes a dead-end strait.

The Canada-United States dispute is a case study in the application of the rules and regimes set forth in the international law of the sea. The legal aspects of the case are intertwined with other variables, and this tends to distort some of the legal analysis involved. Consequently, dissecting the political and economic dimensions of the issue from the legal aspects presented under the law of the sea is particularly important.

Certainly the law should support and promote, but may not necessarily trump, other considerations. Identifying and addressing the legal issues involved will help inform policy makers in the United States and Canada to reach an equitable solution. This article explores the international law that applies in the disagreement over construction and servicing of LNG terminals on the American side of Passamaquoddy Bay. The United Nations Convention on the Law of the Sea (“UNCLOS”) is the principle instrument for this analysis. Canada is a party to UNCLOS; the treaty entered into force for Canada on November 7, 2003. The United States, although not a party, has unilaterally bound itself to nearly all of the provisions of the treaty and in particular has championed the navigational regimes reflected in the agreement.⁵

Presently there exist two serious treatments of the legal aspects of the case, one by John Van Dyke and the other by Ted L. McDorman. The article by John Van Dyke appeared in a 2008 issue of the *Ocean and Coastal Law Journal*, published at the University of Maine Law School.⁶ Although Van Dyke’s piece has much merit, particularly in amplifying Canadian concerns, his analysis of the international law of the sea can be extended further—an objective of this article. In sum, Van Dyke concludes that Canada may prohibit LNG vessels from transiting Canadian (he argues, internal) waters to reach United States ports. This article, which may be read in conjunction

⁵ Proclamation No. 5030, 48 FR 10605 (Mar. 10, 1983) (stating President Ronald Reagan declared the United States would accept the navigation and over flight provisions of UNCLOS).

⁶ John M. Van Dyke, *Canada’s Authority to Prohibit LNG Vessels from Passing Through Head Harbor Passage to U.S. Ports*, 14 OCEAN AND COASTAL L. J. 45, 45-72 (2008).

with Professor Van Dyke's, determines that whatever else the politics of the situation may suggest, the United States has a lawful right to assured access of its ports in Maine and Canada is not at liberty to close those ports to general shipping.

Another analysis, this one contained in a private research memorandum produced in 2007 under contract for a law firm in Montreal, has not been published. The author of the memorandum, Professor Ted L. McDorman, who is on the law faculty at the University of Victoria, Canada, concluded that the "waters of Head Harbour Passage are part of the territorial sea of Canada," and that "Head Harbour Passage is a strait used for international navigation, within which 'non-suspendable' innocent passage rights exist."⁷ The Government of Canada, however, has made repeated pronouncements that it would block LNG tankers calling on United States' ports in Maine. In the end, the irony is that Canada, which is a party to the UNCLOS, is acting inconsistently with the provisions of the treaty, whereas the United States, which is not (yet?) a party, is relying on the terms of the Convention to support its right of access.

The present article concludes with a very limited claim: that the United States has a legal right as against its northern neighbor, to non-suspendable access to its ports that may be reached only via transit through Canadian waters. International law is one important aspect of the controversy, and Canada occupies a vulnerable position in this regard. On the other hand, bilateral political realities suggest that Canadian concerns, which are virtually irrelevant under the law, hold a powerful capacity to disrupt United States' plans for economic development.

American worry over energy security and diversification of energy sources, compounded with the environmental benefits of natural gas, pose equally strong challenges that cannot be ignored in Ottawa. Furthermore, the ability of the United States to exercise sovereignty over the use and access of its port facilities counterbalances Canadian concerns with sovereignty over its territorial seas. Once the dust has settled from this legal analysis, it will be incumbent upon policy makers on both sides of the border to negotiate a path that permits United States economic development and promotes United States energy security. One solution to the problem may lie in rethinking the costs and benefits of energy and environmental protection by repositioning United States' investments and recalibrating the economic multiplier effect of those investments so that greater benefits flow to Canada. The article begins by placing the border area in historical context in part I. B., *infra*, and it

⁷ Memorandum from Ted L. Dorman, Prof. of Law, Univ. of Vict., on the International Legal Status of Head Harbor Passage 57-76 (Jan. 2007) (on file with the author).

ends with a modest concept for a joint, bilateral LNG terminal project that benefits both nations.

B. The Historical Context

The international law of the sea governs the dispute over Head Harbor Passage, but it does so within the context of the history of the maritime boundary. The original border between Maine and Canada is a product of the Treaty of Paris of 1783. The treaty was signed between the Colonies and the English Crown. Article 2 states that the border is measured “. . . from the northwest angle of Nova Scotia, viz., that angle which is formed by a line drawn due north from the source of the St. Croix River to the highlands . . .” This boundary subsequently was a feature of the Jay Treaty of 1784, although the precise border was still somewhat ambiguous.

The vague nature of the border led to the conflict over land rights in the Aroostook River Valley in the undeclared 1838-1839 “Aroostook War,” also called the “Pork and Beans War.” Although both sides rushed troops to the border and other than local citizens skirmishing over the matter, there was no actual fighting by United States and Canadian armed forces. The Aroostook War ended with diplomatic resolution. Secretary of State Daniel Webster negotiated the Webster-Ashburton Treaty in 1842, ending the conflict. The agreement firmly established the present land border between Maine and New Brunswick and Québec, but it still left the exact parameters of the maritime boundary somewhat unresolved.

This condition persisted for more than half a century. In 1908 there was additional clarity with the negotiation of the Passamaquoddy Bay Maritime Boundary Treaty.⁸ Under the terms of the agreement, the Lubec Narrows Channel between Maine and Campobello Island was recognized as a waterway that was “equally free and open for the passage of ships, vessels, and boats of both parties.” This boundary was finalized in the 1910 United States-Great Britain Treaty Fixing the Boundary Line in Passamaquoddy Bay.⁹ The maritime boundary was defined along a line from a point in Passamaquoddy Bay lying between Treat Island and Friar Head running to the Grand Manan Channel. It was still unclear, however, whether the reference to free and open transit in Lubec Narrows Channel would extend to Head Harbor Passage.¹⁰

Article 1 of the 1910 Treaty guarantees that:

⁸ United States-Great Britain Convention Relating to the Canadian International Boundary, U.S.-Gr. Brit., Apr. 11, 1908, 35 Stat. 2003.

⁹ Treaty Fixing the Boundary Line in Passamaquoddy Bay, U.S.-Gr. Brit., May 21, 1910, 26 Stat. 2477, T.S. No. 551.

¹⁰ *Id.*

“[T]he navigation of all navigable boundary waters shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws or regulations of either country, within its own territory, not inconsistent with such privilege of free navigation and applying equally, and without discrimination to the inhabitants, ships, vessels, and boats of both countries.”¹¹

The treaty is important because it guarantees free transit, but it also makes such freedom subject to the “laws or regulations of either country.” Thus, the provision in Article 1 may be interpreted as taking away with the left hand of Canadian law or regulation (prohibitions on LNG tanker traffic) what is offered with the right hand of freedom of navigation. Despite lingering questions over the navigational regime, any disagreements over the actual boundary were dispelled in the 1910 Treaty.¹²

The maritime boundary was further solidified in the Treaty between Great Britain and the United States of February 24, 1925.¹³ Article III of the 1925 agreement extended the 1910 boundary line through the middle of the Grand Manan Channel and through to the high seas, as determined under customary international law at the time (three nautical miles).

It is evident that bilateral boundary treaty law does not unambiguously support a right of United States’ ships of all types to transit Head Harbor Passage that would trump Canadian management of the Passage.¹⁴ Additionally, the treaty only guarantees transit of United States- and Canadian-flagged vessels, not the ships of all nations. Although the treaty covers only passage by ships flying the flag of the United States and Canada, and therefore may be interpreted not to apply to ships flying the flag of a *third* state, the treaty now may have less effect than it once might have.

First, the United States could simply choose to reflag LNG tankers, much as it reflagged Kuwaiti oil tankers during the 1980 “Tanker War,” which raged throughout the Persian Gulf as a byproduct of the Iran-Iraq War. Second, and more importantly, the international law issues in the present disputes over the legal status and rights enjoyed by Canada and the United States in Head Harbor Passage now are within the scope of UNCLOS. As

¹¹ *Id.*

¹² *Id.*

¹³ Treaty Regarding the Demarcation of the Boundary, U.S.-Can., Feb. 24, 1925, 44 Stat. 2102, T.S. No. 720.

¹⁴ See Jeffrey D. Ewen, *The United States and Canada in Passamaquoddy Bay: Internal Waters and the Right of Passage to a Foreign Port*, 4 SYRACUSE J. INT’L L. & COM. 167, 174-75 (1976).

the “constitution” for the world’s oceans, UNCLOS provides the essential rule set for resolving the disagreement. There are two relevant Parts of UNCLOS that shed light on rights and duties in Head Harbor Passage: Part II of the treaty, which presents the governing framework for the “territorial sea and contiguous zone,” and Part III, which sets forth rules for “straits used for international navigation.”

C. The United States Regulatory Process

Two agencies of the United States government have regulatory cognizance over the construction and operation of LNG port terminals in the United States. The United States Coast Guard is an armed force, as well as a law enforcement agency and environmental regulator, within the Department of Homeland Security. With a very broad statutory responsibility, the Coast Guard is responsible for ensuring compliance with ship navigation safety, ship security, naval engineering, environmental compliance, and safety standards in or adjacent to navigable waters of the United States.¹⁵ The Coast Guard exercises regulatory authority over LNG facilities under a variety of complementary legal and policy authorities applicable to port areas and navigable waters.¹⁶ The Coast Guard also reviews ship, port, and company security plans.¹⁷

The company also submits supplementary information directly to the United States Coast Guard Captain of the Port (“COTP”). The COTP Sector Northern New England has authority over the proposals for LNG terminals on the coast of Maine. The COTP conducts a review of navigational and safety risks of each proposal to determine whether the waterways to be used are suitable for the anticipated type and frequency of maritime traffic associated with the project. The final COTP prepares a Water Suitability Report (“WSR”) for each proposed facility.¹⁸ The COTP’s evaluation is made under

¹⁵ See Coast Guard, Dep’t of Homeland Sec., 33 C.F.R. §§ 101-106 (2010).

¹⁶ See generally Exec. Order No. 10173, 50 Fed. Reg. 7005 (Oct. 20, 1950), Exec. Order No. 10173, 15 Fed. Reg. 7005 (Oct. 18, 1950), Ports and Waterways Safety Act of 1972, 33 U.S.C. §§ 1221-1236 (2002), and Maritime Transportation Security Act of 2002, Pub. L. No. 107-295, 116 Stat. 2064.

¹⁷ Coast Guard, *supra* note 15.

¹⁸ See U.S. COAST GUARD, DEP’T OF HOMELAND SEC., NVIC 05-08, GUIDANCE RELATED TO WATERFRONT LIQUEFIED NATURAL GAS FACILITIES (replacing the term Water Suitability Report with the term Letter of Recommendation Analysis), and U.S. COAST GUARD, DEP’T OF HOMELAND SEC., NVIC 05-05, GUIDANCE ON ASSESSING THE SUITABILITY OF A WATERWAY FOR LIQUEFIED NATURAL GAS MARINE TRAFFIC (retaining the term WRS in the Coast Guard’s Downeast LNG evaluation). The term WSR, however, was retained in the Coast Guard’s Downeast LNG evaluation since the review originated under NVIC 05-05. The WSR includes consideration of the projected vessel route, an examination of the attributes of the waterway, weather and tides, port characterization, density and character of maritime traffic, and any

the guidance set forth in two United States Coast Guard Navigation and Vessel Inspection Circulars (“NVICs”).¹⁹ The WSR meets the requirements of the NVICs for an independent review of the proposed facilities and the potential for threats to the marine environment, safety of navigation, and public health.²⁰ Once a proposed project gets underway, the WSR is read in conjunction with a separately issued COTP Order, the latter issued pursuant to the Ports and Waterways Safety Act of 1972.²¹

The Federal Energy Regulatory Commission (“FERC”) is the lead federal agency charged with conducting environmental, safety, and security reviews of LNG plants and their associated pipeline facilities in the United States. FERC oversees the process of authorizing the location, construction, and operation of LNG facilities and the agency prepares National Environmental Policy Act (“NEPA”) documentation, including preparation of the Environmental Impact Statement (“EIS”).

In accordance with an Interagency Agreement between FERC and the Coast Guard, the Coast Guard is a cooperating agency with FERC under NEPA. FERC is the approval authority for site placement and authorization for building of LNG terminals in the United States. Each proponent company must receive a license issued by FERC prior to beginning construction of LNG facilities, and submit an Emergency Response Plan to address safety concerns. Applicants and supporting Resource Reports are provided to FERC.

II. PASSAMAQUODDY BAY

There were three proposals by United States companies to build LNG terminals on the shoreline of Passamaquoddy Bay. The first, proposed by Downeast LNG (“DELNG”), remains the only viable plan. A second proposal, developed by Quoddy Bay LNG, LLC, sought to build and operate a LNG facility located about eight nautical miles downstream from where the DELNG facility would be constructed. But on October 17, 2008, the FERC dismissed the application for the terminal and associated pipelines without

special zones of concern.

¹⁹ See U.S. COAST GUARD, DEP’T OF HOMELAND SEC., NVIC 05-05, *supra* note 18, *amended by* U.S. COAST GUARD, DEP’T OF HOMELAND SEC., NVIC 05-08.

²⁰ U.S. COAST GUARD, DEP’T OF HOMELAND SEC., NVIC 05-05, *supra* note 18. NVIC 05-08 and 05-05 establish United States Coast Guard policy for assessing the suitability of a waterway to support LNG carrier traffic.

²¹ See Coast Guard, Dep’t of Homeland Sec., 33 U.S.C. § 1223(a)(1) (2006) (authorizing the United States Coast Guard to enact measures for controlling oil tanker ship traffic or for protecting navigation and marine environment).

prejudice because Quoddy Bay LNG failed to provide previously requested information.²²

The third facility, proposed by Calais LNG, would be a one billion cubic foot per day (“bcfd”) receiving terminal and associated pipeline occupying 2,800 feet of shoreline frontage along the Saint Croix River and Passamaquoddy Bay. The site is only 6 miles south of Calais, a small town of about 3,400 people (2000 census data).²³ The Calias facility would include three LNG storage tanks on site. The beach area along the coast, however, is rather isolated, so there would be minimal impact on the local community. LNG tankers would be escorted by security vessels and managed by tug boats as they make their way through Head Harbor Passage near East Quoddy. From there, the ships would follow a course around the southern tip of Deer Island, make a right turn, and head north into the Western Passage up the St. Croix River to land deliveries at the terminal. The natural gas would then be sent through a proposed twenty-mile pipeline to an interconnection within the existing Maritimes and Northeast Pipeline in Princeton.²⁴

A. The Downeast LNG Proposal

Among the three proposals, it appears that only one still survives. DELNG sent a Letter of Intent (“LOI”) to COTP Sector Northern New England on December 20, 2005, that it sought to construct an LNG import terminal and associated infrastructure in Washington County, Maine. The company, a Delaware-based corporation, proposed construction of a 500 million cubic feet per day (“mcf”) LNG terminal at Robbinston, Maine, on the St. Croix River.²⁵ Robbinston is a small town with a population of just over five hundred people (2000 census data).²⁶

²² Letter from J. Mark Robinson, Director, Office of Energy Projects, FERC, to William S. Scherman, Skadden, Arps, Slate, Meagher & Flom LLP, Quoddy Bay LNG, LLC Counsel (Oct. 17, 2008) (copy on file with author), *available at* http://elibrary.ferc.gov/idmws/docket_search.asp (enter “CP07-38” into Docket No. search box; restrict “filing date range” to 10/17/2008; then follow “FILE LIST” hyperlink; then follow hyperlink to document).

²³ John A. Sullivan, *US Coast Guard Gives Calais LNG OK: Golden Pass LNG Online in Texas*, NAT. GAS WEEK, Sept. 27, 2010, *available at* <http://www.highbeam.com/doc/1G1-239119326.html>.

²⁴ Meghan Gordon, *Calais LNG Terminal Proposal Picks up Permits from Local Planning Board*, PLATTS: INSIDE FERC, July 19, 2010, at 14.

²⁵ Melanie Tatum, *New Brunswick Premier Criticizes FERC Review of Downeast LNG Project in Maine*, PLATTS: INSIDE FERC, July 13, 2009, at 20.

²⁶ U. S. COAST GUARD CAPTAIN OF THE PORT, SECTOR NORTHERN NEW ENGLAND, LIQUEFIED NATURAL GAS FACILITY WATERWAY SUITABILITY REPORT FOR THE PROPOSED DOWNEAST LNG FACILITY ROBBINSTON, ME at 2 (Jan. 6, 2009), *available at* http://www.downeastlng.com/documents/CG_Redacted_WSR.pdf.

The facility could peak at a capacity of 625 mcf/d, with the possibility of expanding to a total capacity of 1 billion bcf/d.²⁷ The DELNG import, storage, and regasification (vaporization) facility would be constructed on an eighty acre tract of land on the south side of Mill Cove, Robbinston, Maine, near the confluence of Passamaquoddy Bay and the St. Croix River. The natural water depth at the pier would be fifty feet at the mean, low, low water mark. The entire installation would include a 3,862-foot single-berth pier and vessel mooring system, a pipeline for LNG tanker unloading, and the supporting pipeline, onshore storage tanks, and regasification infrastructure.²⁸ There would be five major components to the facility: a marine terminal, a storage facility with two storage tanks, pipelines, supporting infrastructure, and the natural gas pipeline.²⁹

A thirty-inch diameter sendout pipeline, thirty-one miles in length, would connect the DELNG facility to the existing interstate Maritimes and Northeast Pipeline (“M&NP”), serving the states of Maine, New Hampshire, and Massachusetts. Every five to seven days in the winter and eight to ten days in the summer, an LNG carrier would arrive from a foreign port and offload to the terminal. Ships ranging from 70,000 to 165,000 meters cubed capacity, and up to 220,000 meters cubed capacity in the future, could call at the terminal. These massive ships are more than one thousand feet in length and have a draft of up to forty feet cubed. The LNG would be offloaded from carriers and pumped to the storage tanks, and then ultimately regasified—converted to natural gas—and fed through the M&NP pipeline to customers in New England.

1. Navigation to and from Port

The DELNG facility is planned for construction on the down slope of Mill Cove, which lies on the west side of the mouth of the St. Croix River. Carriers offloading at the DELNG facility would take a circuitous route through Canadian national waters, just as all deep-draft vessels that call on ports along Passamaquoddy Bay. For example, deep-draft vessels bound for Bayside, New Brunswick, or Eastport, Maine, enter either through the Gulf of Maine and into Grand Manan Channel or via Grand Manan Basin into the Bay of Fundy.

LNG vessels would approach the United States from a position about five miles southeast of Cutler, Maine and about ten miles northwest of the southern end of Grand Manan Island. From this location, ships would turn northeast and parallel to the coast of Maine, travelling between Cutler and Quoddy

²⁷ *Id.* at 1.

²⁸ *Id.*

²⁹ *Id.* at 3.

Head State Park. Ships would be required to maintain a northeasterly course and enter into Canadian waters along the east and northeast coasts of Campobello Island, New Brunswick. Ships would then thread Head Harbor Passage, passing Campobello Island along the island's north shore, to Friar Roads south of Indian Island and Cherry Isle, into United States waters.

Although Head Harbor Passage is located exclusively in Canadian waters, Friar Roads, Western Passage, Passamaquoddy Bay, and the St. Croix River incorporate the international boundary between Canada and the United States. As vessels continued north through Western Passage and following the international boundary between Canada and the United States, with Deer Island to the right and the Maine coast on the left, they would reenter United States waters and near the mouth of the St. Croix River. The course from the ocean to the terminal would take between two to three hours.

Head Harbor Passage offers the only direct oceanic entryway to Eastport, Maine, serving forty vessels each year.³⁰ United States Navy and other United States government vessels routinely have used the facilities at Eastport. The port of Eastport has berthing for a ship up to seven hundred feet in length. Likewise, across from Calais, Maine, the Bayside Port Corporation in New Brunswick, Canada has three berths with lengths of 330, 264, and 462 feet, and corresponding depths of 26.7, 21.5, and 32 feet, respectively. Area ports already handle commodity shipments, although presently no bulk petroleum products are transported through the Passamaquoddy Bay area. Some crude oil tanker traffic, however, crosses the Bay of Fundy on its way to the port of St. John, New Brunswick. A handful of times each year ammonium nitrate, used in agriculture fertilizer in Maine and New Brunswick, enters the port at Bayside, New Brunswick.

The proposed DELNG tanker routing includes United States and Canadian waters, which gives rise to political, legal, environmental protection, and security issues. In particular, the transit implicates the rules governing UNCLOS. The route also contains other areas and sites of special interest. Saint Croix Island, owned by the United States, is a designated heritage site. In Canada, the coasts of Grand Manan Island and Deer Island are environmentally sensitive, as is Campobello Island, with its coastline along the Bay of Fundy.

The intended route for LNG carriers passes near three Fundy Isles: Deer Island, Campobello Island, and Grand Manan Island. There are no physical hazards, such as shipwrecks, reefs, or shoals, or man-made features such as bridges, dams, or locks, obstruct the shipping channel. The Bay of Fundy

³⁰ Int'l Maritime Org., Subcomm. on Safety of Navigation, *Proposal: Routing of Ships, Ship Reporting and Related Matters: Amendment of the Traffic Separation Scheme in the Bay of Fundy and Approaches*, ¶ 3.2, NAV 48/3/5 (Apr. 5, 2002), available at http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/atba_proposal.pdf.

has famously extreme tides, with a tidal range from eleven to twenty-six feet, and these contributed to a five to six knot current. A one thousand-yard narrow section is located between Dog Island and Deer Island Point. At high tide, the shoreline plunges into deep water very close to the shore, and at low tide there is a vast expanse of exposed sand and mud intermixed with a substantially rocky shoreline containing shoals jutting into the water. The largest islands are inhabited year-round and located in Canadian waters. The waters along the transit route are subject to whirlpools on the ebb and flood tides where currents converge. Head Harbor Passage is a narrow point, the width being only 1,200 yards between Casco Bay Island and Head Harbor.

2. Downeast LNG Waterway Suitability Report

Like the review of the Calais LNG project, the Coast Guard's WSR for the DELNG proposal included "significant public outreach and a comprehensive interagency review to ensure all safety and security risks were identified . . ." ³¹ The WSR considered the likelihood and consequences of accidental or intentional release of LNG into the environment, either as a result of ship incidents such as collisions, elisions, and groundings or from a terrorist attack. ³²

Coast Guard Sector Northern New England determined in a WSR dated January 6, 2009, that the waterway route from the Atlantic Ocean into Robbinston, Maine was suitable for positioning the proposed DELNG terminal. ³³ The New England sector released a letter to FERC on January 6, 2009, which concluded that "Passamaquoddy Bay waterway is suitable for the type and frequency of marine traffic" associated with the project. ³⁴

Regarding the international law of the sea, the Coast Guard WSR stated:

³¹ Press Release, U.S. Dep't of Homeland Sec., Coast Guard Makes Decision on Downeast LNG Transits (Jan. 7, 2009), <http://www.dl.uscgnews.com/go/doc/778/247328/> (quoting United States Coast Guard Rear Admiral Brian Salerno, Assistant Commandant for the Coast Guard's Marine Safety, Security and Stewardship Directorate).

³² MIKE HIGHTOWER ET AL., SANDIA NAT'L LAB. REPORT, GUIDANCE ON RISK ANALYSIS AND SAFETY IMPLICATIONS OF A LARGE LIQUEFIED NATURAL GAS (LNG) SPILL OVER WATER 37-39 (2004), available at http://www.fossil.energy.gov/programs/oilgas/storage/lng/sandia_lng_1204.pdf.

³³ U. S. COAST GUARD CAPTAIN OF THE PORT, *supra* note 26 (stating the United States Coast Guard reviewed the DELNG proposal pursuant to 33 C.F.R. § 127.009).

³⁴ Letter from J.B. McPherson, Commander, U.S. Coast Guard Sector Northern New England, to J.M. Robinson, Director, Federal Energy Regulatory Commission (Jan. 6, 2009), available at <http://www.maine.gov/spo/specialprojects/lng/downeast/Appendix%20B%20USCG%20LOR%20&%20WSR.pdf>.

In contrast to Canada's assertion, it is the formal position of the United States that vessels departing to and from United States ports on the waters of the Passamaquoddy Bay port area enjoy the undisputable right of innocent passage under customary international law as reflected in the United Nations Convention on the Law of the Sea . . . ³⁵

This finding is consistent with earlier United States assertions, dating back to the 1970s, concerning the United States' right of innocent passage throughout Head Harbor Passage in order to reach American zone-locked ports, which otherwise would be inaccessible from the Atlantic Ocean.³⁶

Second, the suitability determination was contingent on implementation of risk mitigation measures by Downeast Liquefied Natural Gas Corporation and appropriate maritime safety and security measures by local civil authorities, in both United States and Canada. Liquefied natural gas is not necessarily easy to ignite, but once on fire, it burns at extremely high temperatures. Scientists at Sandia National Laboratories, for example, determined that if a large liquefied natural gas spill on the water were ignited, it could burn at three thousand degrees Fahrenheit for thirty to sixty minutes. The radiant heat released by such a fire would be damaging for about four-tenths of a mile distance from the damaged vessel.

Beyond that range, the degree of heat flux decreases appreciably depending on weather and climate conditions, including wave height, wind speed, and ambient temperature. Clearly, a liquefied natural gas fire is difficult to extinguish. However, while any liquefied natural gas ignition would be a calamity, such terminals exist in areas of much denser population than the coast of Maine such as Boston Harbor. In comparison, the territory on both sides of the border, along Maine and New Brunswick, are relatively sparsely populated, with a low concentration of industrial infrastructure. The waterway is also fairly remote. Because of these factors, the Sandia study concluded that the Downeast Liquefied Natural Gas facility could be operated safely, subject to establishment of three concentric safety zones, detailed at section II. B. 1-3, *infra*.

³⁵ U. S. COAST GUARD CAPTAIN OF THE PORT, *supra* note 26, at 47.

³⁶ See, e.g., *Law of the Sea and International Waterways*, 1975 DIG. U.S. PRAC. INT'L L. 376, 432 (1975) (stating that in an aide-memoire to the Canadian Government dated March 12, 1975, the Department of State defended the right of innocent passage for vessels proceeding to or departing from United States ports through the Head Harbor Passage).

B. Vessel Safety and Security Zones

The terms “safety zone” and “security zone” are often used interchangeably, just as the Marine Safety Committee at the International Maritime Organization (“IMO”) addresses both safety and security issues. In the United States, however, the two terms are not necessarily synonymous. Because each type of zone may be established under separate statutory authorities, each zone is, therefore, designed to achieve different purposes. In general, safety zones are created to protect objects outside of the zone from what is inside the zone, such as protecting commercial ships from areas of low tide elevation or rocks.

A safety zone may include water or shore areas, or some combination of water and shore areas, access limited to persons or vessels specifically authorized by the Captain of the Port or the United States Coast Guard District Commander.³⁷ The Captain of the Port may issue lawful orders to any person present in a safety zone, and anyone who has notice of such lawful order or direction must obey it under penalty of law. A safety zone may have fixed limits, or it may adhere to a vessel in motion and move with the ship. Safety zones may be permanent or temporary.

Safety zones are appropriate to mitigate risks of fire from LNG carriers during the transfer of cargo. In addition, because the LNG carrier is a high value asset and potential target of terrorist attack, a security zone is also appropriate to protect against subversive acts. There exist safety and security zones around LNG carriers moored pier-side in United States ports. These zones include a four hundred yard radius zone for LNG tankers at the pier in Boston Harbor; a five hundred yard radius zone around berthed LNG carriers in Chesapeake Bay, Maryland; a seventy yard radius around LNG carriers transferring cargo in Savannah River, Georgia; a fifty foot zone surrounding LNG carriers in Lake Charles, Louisiana; a zone of more than one thousand yards around a floating LNG storage and regasification unit (“FSRU”) in Long Island Sound; and a zone extending to a radius of five hundred yards around liquefied propane gas carriers moored at the receiving terminal in Piscataqua River, New Hampshire. The United States Coast Guard recommended a fixed five hundred yard radius safety and security zone for LNG carriers offloading at the DELNG terminal.

The Coast Guard also determined that a moving safety zone for LNG carriers traveling at a speed of advance of ten knots through Passamaquoddy Bay would be: two nautical miles (four thousand yards) ahead, one nautical mile (two thousand yards) astern, and one-fourth nautical mile (five hundred yards) abeam on port and starboard side. This formula replicates the model

³⁷ Coast Guard, Dep’t of Homeland Sec., 33 C.F.R. § 165.5 (2006).

used around LNG carriers underway in Boston, Long Island, Lake Charles, Louisiana, and Savannah River, Georgia. (Long Island has a 750-yard zone on each side of the LNG carriers). Chesapeake Bay, Maryland requires a one-fourth nautical mile (five hundred yards) radii around underway liquefied natural gas carriers, whereas Piscataqua River in the Portsmouth, New Hampshire area has a safety zone around liquefied petroleum gas carriers that is one nautical mile (two thousand yards) ahead, one-fourth nautical mile astern (five hundred yards), and one-half nautical mile abeam each side (one thousand yards).³⁸

Security zones, on the other hand, protect what is inside the zone from potential threats lying outside the zone, such as protecting a high value naval asset—such as a ballistic missile submarine—from small boat threats. Security zones are established in the interest of national security, rather than for community or boater safety. Naval Vessel Protection Zones (“NVPZ”), for example, are movable security zones of five hundred yards around United States Navy warships transiting in United States waters. Like safety zones, security zones may be established around designated areas of land, water, or some combination of the two, and they may be either temporary or indefinite in duration.³⁹ Safety zones and security zones are established through the Federal rulemaking process and are published in the Federal Register.

The DELNG water suitability report envisions three separate but overlapping security and safety zones.

1. Zone One

Zone One encompasses a five hundred meter radius around liquefied natural gas tankers and facilities. The greatest risk within Zone One is from thermal radiation due to fire. There are no large population centers or critical infrastructure within this zone. Vessels bound for the port of Bayside may enter into Zone One if LNG carriers are at the pier. Ferries connecting Deer Island, New Brunswick; Eastport, Maine; and Campobello Island, New Brunswick could also be in Zone One due to the passage of a nearby liquefied natural gas carrier. As LNG carriers transit through Head Harbor Passage, the northern tip of Head Island, and parts of neighboring Campobello Island would be within the zone.

³⁸ U. S. COAST GUARD CAPTAIN OF THE PORT, *supra* note 26, at 61-62.

³⁹ See Coast Guard, Dep’t of Homeland Sec., 33 C.F.R. §§ 6.04-6, 165.30(D); see also War and Nat’l Def., 50 U.S.C. § 191 (2006).

2. Zone Two

Zone Two includes the area extending out to a radius of 1,600 meters. There are fewer potential dangers to public health and safety in Zone Two and beyond.⁴⁰ As LNG tankers transit Zone Two—the land territory of Dog Island Light, and parts of Moose Island on the Maine side of the border and Deer Island on the New Brunswick side—could be at heightened risk.

The United States Coast Guard Station at Eastport, which is used for search and rescue and law enforcement missions, could fall into either Zone One or Zone Two. Areas inside the United States that would be within Zone Two during ship transits include most of the town of Eastport, Kendall Head, and Pleasant Point, Maine.

One segment of Route 190 in Maine is within Zone Two, and the road provides the only vehicle access to and from Eastport. Areas inside Canada that would fall within Zone Two during LNG vessel transits of Head Harbor Passage include Brown Head, Wilson's Beach, Windmill Point, Bald Head, Spruce Island, Sandy Island, Casco Bay Island, Green Island, Pope Island, and Indian Island.

3. Zone Three

Zone Three, which lies beyond 1,600 meters, includes all of Moose Island, Pleasant Point, Perry, and Robbinston, Maine. In Canada, Welshpool and all of Northern Campobello Island are potentially within Zone Three.

C. Traffic Vessel System

Another dimension of maritime safety and security includes vessel traffic management. Ships destined for Canada and the United States are required to provide a ninety-six hour notice of arrival. Deep draft vessels calling at United States ports are monitored by the National Vessel Movement Center. The United States and Canada fully cooperate in operating a Vessel Traffic System ("VTS") in the Bay of Fundy. Ship movements are controlled by the Canadian VTS, "Fundy Traffic," located in St. John, New Brunswick. Fundy Traffic requires a twenty-four hour advance notice for ships transiting the area. Once inside the Fundy Traffic zone, ships must maintain voice contact on Very High Frequency-Frequency Modulated ("VHF-FM") with controllers and check in on designated frequencies at established waypoints.

Although Fundy Traffic operates radar that covers the entire Bay of Fundy, there is no visual or radar coverage inside Head Harbor Passage. If the DELNG terminal is built, the United States Coast Guard recommends that a

⁴⁰ U. S. COAST GUARD CAPTAIN OF THE PORT, *supra* note 26, at 20.

radar repeater be installed on either Campobello Island, Deer Island, or in Eastport, Maine in order to fill the gap in coverage throughout Head Harbor Passage. The United States makes pilotage compulsory for foreign-flagged vessels and United States vessels conducting foreign trade that are transiting United States waters. In contrast, neither the *Pilotage Act* nor the *Atlantic Pilotage Regulations* of Canada mandate compulsory pilotage for all vessels transiting Passamaquoddy Bay or the Bay of Fundy on their way to or from Canadian ports. In practice, however, nearly all vessels bound for Saint John, New Brunswick via the Bay of Fundy employ Canadian pilots.

D. Marine Environmental Protection

In May 2009, the FERC released a draft environmental impact statement (“DEIS”) for the DELNG facility.⁴¹ Two months later, Shawn Graham, Premier of New Brunswick, criticized the DEIS in a statement to the media. The DEIS, he claimed, “indicates that our environment would be negatively affected, our tourism- and environmental-based economy would suffer, and the safety and security of the region could be compromised by this proposal . . .”⁴² Graham charged in a letter to the FERC Chair, Jon Wellingshoff, that the proposal’s impacts “are not minimal or insignificant and many cannot be mitigated under any circumstances.”⁴³

Risks to New Brunswick include the imposition on limited public resources to ensure safety and security of LNG tankers in Canadian waterway approaches to the proposed DELNG site, impacts on aquaculture, the affect on fisheries, ferry routes, and other vessel traffic, and disturbance of “significant cultural and archaeological resources.”⁴⁴ Even now, DELNG awaits completion of the final environmental impact statement.

One likely effect of the DELNG facility on the natural marine environment is increased risk to marine mammal life in the Bay of Fundy. The North Atlantic Right Whale, which has been on the endangered list of the *Endangered Species Act* since 1973, tends to congregate east of Grand Manan Island near the Roseway Basin off the coast of Nova Scotia. The presence of the Right Whale has complicated the politics of the LNG proposals, and the WSR concluded that increased tanker traffic may result in greater numbers of whale strikes.⁴⁵ Furthermore, the LNG tankers bring an additional risk of incidents of marine environmental pollution, which could further degrade the Right Whale habitat. Protecting Right Whales from ship strikes

⁴¹ Tatum, *supra* note 25.

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ U. S. COAST GUARD CAPTAIN OF THE PORT, *supra* note 26, at 9-10.

and harassment is a critical environmental management issue for the United States and Canada, and the increased risk of ship strikes is one element that augurs against the development of DELNG.

E. Political Fallout

Each year millions of Canadian citizens and Canadian goods worth billions of dollars enter the United States through ports of entry in Maine.⁴⁶ The close relationship between the United States and Canada, however, and the serenity of the land border and depth of bilateral cooperation between the two nations, belies a history of difficulty in sorting out legal issues along the maritime boundary. The two nations enjoy the longest peaceful border on the planet, and in the maritime domain their differences have been resolved through dialogue, negotiation, or judicial action.

But there is also a certain level of political rhetoric associated with maritime border disputes. Political figures on both sides of the border have weighed in on the matter of Head Harbor Passage. Canada has roundly criticized any LNG terminal on the United States side; local, provincial, and national leaders have pledged to block LNG tankers destined for any of the proposed United States terminals from Canadian waters via Head Harbor Passage.

On September 26, 2006, Prime Minister Stephen Harper, for example, presented what appears to be a virtually unanimous Canadian view to the House of Commons: “This government believes that the waters of Passamaquoddy Bay are Canadian waters. We have defended that position for a long time. We oppose the passage of LNG tanker traffic through Head Harbor and we will continue to do so.”⁴⁷

In February 2007, the Canadian Ambassador to the United States sent a letter to the Chair of the United States FERC, pledging that Ottawa would prohibit “passage of LNG tankers though the environmentally-sensitive and navigationally-challenging marine and coastal areas of the sovereign Canadian waters of Head Harbor Passage,” because the transits “present risks to . . . southwest New Brunswick and its inhabitants that the Government of Canada cannot accept.”⁴⁸

Similarly, in February 2010, the Canadian province of New Brunswick sent a letter to FERC rejecting the proposed Calais development because of waterway safety concerns. Maine fired back in March 2010, with Maine

⁴⁶ Letter from Olympia J. Snowe & Susan M. Collins, Republican Senators of Me., to David H. Wilkins, U.S. Ambassador to Can. (Feb. 1, 2007).

⁴⁷ 141 Hansard 53, 39th Parliament, 1st Session, at 14555 (2006).

⁴⁸ Letter from Michael Wilson, Can. Ambassador, to Joseph T. Kelliher, Chair of the U.S. Fed. Energy Regulatory Comm’n (Feb. 14, 2007).

Republican State Representative Dianne Tilton writing a letter to FERC in support of the Calais LNG terminal. Tilton stated the project was a key to the state's strategy of diversifying its energy supply.⁴⁹ Bedeviled by delays and protests, the Calias project lost the support of GS Power Holdings, a subsidiary of Goldman Sachs Group, in July 2010. But, that same month, the project was awarded permits from the town zoning commission in Maine, which voted unanimously to approve the 135-acre facility.⁵⁰ Still, without deep pocket funding the project is no longer viable.

United States Senators Olympia J. Snowe and Susan M. Collins from Maine expressed concern over Canada's unwillingness to permit LNG carriers bound for the United States. In a letter to David Wilkins, the United States Ambassador to Canada, regarding statements made by Canadian officials, the senators defended the right of Maine to have unfettered access to its ports.⁵¹ Senators Snowe and Collins projected a classically liberal interpretation of the international law of the sea that maximizes the right of the United States and other nations to conduct transits in ocean waters and enjoy access to ports and waterways. Their position reflects the United States effort since 1979 to actively seek global acceptance of and adherence to freedom of navigation worldwide.⁵²

Companies seeking to develop LNG terminals also have charged Canada with acting inconsistently with its obligations under UNCLOS. A lawyer for Quoddy Bay LLC, for example, asserted "[UNCLOS] binds Canada [and] requires that they give any ship the right of 'innocent passage' through that [Head Harbor] strait. Thus, foreign vessels must be allowed to pass from the high seas through Canada's territorial waters to reach waters of the United States such as those in Passamaquoddy Bay."⁵³ While politicians haggle over the application of UNCLOS, it is more productive to approach the issue of the international law of the sea from a perspective of detachment and dispassion.

III. LAW OF THE SEA

The governance of the oceans reflects the classic model of a "global commons," and the term is a useful metaphor for thinking about shared

⁴⁹ Sullivan, *supra* note 23.

⁵⁰ Gordon, *supra* note 24.

⁵¹ Letter from Snowe & Collins, *supra* note 46.

⁵² *Accession to the 1982 Law of the Sea Convention and Ratification of the 1994 Agreement Amending Part XI of the Law of the Sea Convention: Hearing Before the S. Armed Serv. Comm.*, 109th Cong. 2 (2004) (statement of William H. Taft IV, Legal Adviser, U.S. Dep't of State).

⁵³ Gordon Grimes, *Treaty Trumps LNG Politics*, BANGOR DAILY NEWS, Mar. 24, 2006, at A15.

space. The benefits of operating in the oceans are diffuse and shared by all states; no nation may purport to establish exclusive control over the seas beyond areas of national jurisdiction. As a domain principally useful for mobility—shipping is still the most efficient method of transporting large quantities of heavy cargo and material long distances—the oceans have had a profound effect on world politics. The oceans are of essential importance to both strategic security and economic prosperity, as well as continued globalization and an ensured liberal world order.⁵⁴

Throughout the ancient world, and extending into the modern period, the political order has largely been an outgrowth of the sea as a vector for transit. Greek civilization, the Roman Empire, the Ottoman expansion, the Columbian Exchange, the rise of the Dutch Provinces, and British hegemony all were made possible by international sea transportation. Likewise, the pace of international commerce accelerated once European powers rounded the Cape of Good Hope to bypass dangerous land-based trade routes controlled by Ottoman armies. The Colombian Exchange transformed the Old World and the New World, and the phenomenon of globalization burst into reality only through the use of unimpeded maritime transportation.

The seas are governed by a juridical and political framework that developed over the past four hundred years. These regimes are a product of historic power relationships among coastal states and maritime states. The relatively open order of the oceans derived from the policy preferences of rather liberally-minded maritime states and their geopolitical position as an offshore balancing force in European politics. In particular, the maritime dominance of the Dutch Republic and England had a dispositive effect on the creation and maintenance of ocean governance that valued freedom of the seas. These Anglo-Saxon powers departed from the Iberian approach, which was to lay claim to the Atlantic Ocean and the Pacific Ocean in the Treaty of Tordesillas and the Treaty of Saragossa. After World War II, the customary rules and norms applicable to the maritime commons were promoted during the 1970s by the five major maritime powers: the United States, United Kingdom, Japan, France, and the Soviet Union. Freedom of the seas was codified in UNCLOS during the negotiations of the 1970s.⁵⁵

The result of this history is nothing short of profound. UNCLOS is the most comprehensive agreement in existence after the United Nations Charter. With more than 155 state parties, today UNCLOS has become an “umbrella” treaty, providing the essential governance for a multitude of supporting treaties, codes, guidelines, and practices regulating international conduct at sea.

⁵⁴ JOHN HALFORD MACKINDER, *BRITAIN AND THE BRITISH SEAS* 12 (2d. ed., 1907).

⁵⁵ United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter *Law of the Sea Convention*].

UNCLOS prescribes rules for activity on, over, and under the seas; many of its provisions reflect principles of customary international law.

Because UNCLOS apportions the rights and duties of flag, port, and coastal states, the entire architecture of ocean law represents a “package deal” in which states enjoy specific rights as well as fulfill enumerated and concomitant responsibilities. The compromises in UNCLOS are the bedrock of global ocean law and policy. Today, however, the durability of the bargains in UNCLOS risks being cast into doubt. The debate over the legal status and character of the waters and navigational regimes in Head Harbor Passage is merely one of a legion of maritime disagreements that serve to weaken the integrity of the international law of the sea.

A. National Waters

The point of departure for the law of the sea is the concept of the “baseline,” since all of the various navigational regimes in UNCLOS are measured from this point. The baseline of a coastal state represents an imaginary line normally running along the low-water mark of the shoreline, as marked on the nation’s official large-scale charts. In certain limited instances, coastal states may deviate from the requirement to draw a normal baseline along the low-water mark and instead draw straight baselines. Straight baselines may be used in locations where the coastline is deeply indented and cut into, or where there is a fringe of islands along the coast. Straight baselines must not depart from the general direction of the coast, and the sea areas they enclose must be closely linked to the land domain. States may misuse straight baselines in order to make a legal claim to exclusive authority over international water.

The regimes in the UNCLOS are measured from the baseline of the coastal state, which normally runs along the low water mark of the shoreline as marked on the nation’s official large-scale charts.⁵⁶ Coastal state waters located landward of the baseline constitute internal waters, over which coastal states exercise complete and absolute sovereignty.⁵⁷ Generally, there is no right of access to internal waters by foreign-flagged vessels landward of the baseline. This general rule, however, has more than one important caveat. For example, there are international straits that cut through internal waters, but through which vessels of all nations enjoy some passage rights. The Strait of Magellan and the Turkish Straits are both intersecting internal waters of coastal states. In both cases, the rules associated with the strait are derived from a separate, long-standing treaty. Many scholars also believe that ships and aircraft also enjoy the right of entry into internal waters under

⁵⁶ *Id.* at § 2, art. 5.

⁵⁷ *Id.* at § 2, art. 8(1).

circumstances of *force majeure*, although this position is not universally accepted.

In 1951, the International Court of Justice (“ICJ”) affirmed the use of straight baselines in the “*Fisheries Case*” (*United Kingdom v. Norway*).⁵⁸ The Court determined that Norway’s use of straight baselines was in accord with international law. The Court also ruled that the straight lines could not depart “to any appreciable extent from the general direction of the coast.”⁵⁹ The surrounding areas of water, moreover, must be “sufficiently closely linked to the land domain.”⁶⁰ The *Fisheries Case* was decided based upon the distinctive features of the Norwegian coast and the presence of insular geographic formations called *skaergaard* that intrude into the water. Many coastal states, typically in grossly dissimilar circumstances than Norway, have sought to apply the ICJ’s reasoning to justify straight baseline claims.

Straight baselines are used by a coastal state to smooth out measurements along coastlines that are deeply indented and cut into or along shorelines where there is a fringe of islands. Regardless of which test is used, however, straight baselines must not depart from the general direction of the shoreline. The ocean space enclosed by straight baselines also must be closely linked to the land. In cases in which islands are situated among atolls or having fringing reefs, the low-water line of a reef may be used to draw the baseline.

There is little doubt that at least some areas of Passamaquoddy Bay meet the definition of a juridical bay under UNCLOS. It is less clear, however, whether the entire Bay of Fundy would meet the test. A bay is defined under UNCLOS as “a well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters.”⁶¹ But “[a]n indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.”⁶²

The United States accepts the rule that straight baselines may not exceed twenty-four nautical miles (“nm”) in length across the mouth of a bay. This understanding is attractive because it provides an objective standard for straight baselines and is logically consistent with a twelve nm territorial sea. In localities where the mouth of a bay is wider than twenty-four nm, states may elect to draw a straight baseline up to a total of twenty-four nm in length across the bay to enclose the maximum area of water.⁶³

⁵⁸ Marjorie M. Whiteman, *Baseline Chapter IV: Territorial Sea and Contiguous Zones: Limits of the Territorial Sea*, 4 DIG. OF INT’L L. 137, 153-55 (1965).

⁵⁹ *See id.*

⁶⁰ *See id.*

⁶¹ Law of the Sea Convention, *supra* note 55, at art. 10(2).

⁶² *Id.*

⁶³ *Id.* at art. 10 and 10(6). It is noteworthy that this closing rule does not apply in the case of an historical bay, such as Hudson Bay. In such case, however, the coastal state would still

When straight baseline segments are used to enclose bays, additional rules apply. Where the presence of islands situated across the mouth of the bay create more than one mouth, the semi-circle may be drawn on a line as long as the sum total of the lengths of the segment lines across the different mouths.⁶⁴ Whether one or several closing lines are drawn, the total length of the closing lines should not be more than twenty-four nm.⁶⁵ Passamaquoddy Bay would meet this test and straight baselines could be drawn across the mouth.

Coastal states may also capture historic waters within straight baselines and enclose the waters as “internal” water. Because the rule for establishing historic internal waters is somewhat vague, a creature of the law and custom of nations, it has been particularly ripe for abuse by coastal states. But, claiming an area as historic waters is notoriously difficult for a coastal state, and most areas claimed do not actually fulfill the test. In 1962, the United Nations Secretariat recognized the three factors to be considered in determining whether a body of water may be claimed as historic internal waters. First, the coastal state has to exercise authority over the area. Second, the coastal state must demonstrate a continuity of the exercise of authority. Third, the coastal state bears the burden of showing the acquiescence of foreign nations.⁶⁶

Acquiescence is the tacit acceptance of the coastal state’s legal position by other states. Acquiescence arises as a result of failure to demonstrate non-acceptance and place the coastal state on notice that the claim has not been accepted. The conduct of operational challenges and deliverance of diplomatic demarches against excessive internal waters claims are important indicia of non-acquiescence.

The United Nations Secretariat’s three-part test makes historic claims notoriously difficult to maintain. The United States Supreme Court adopted a nearly identical test.⁶⁷ The failure on the part of other nations to make timely protests in circumstances when they reasonably could have been expected to do so may constitute tacit acceptance.⁶⁸ If nations rest on their rights, they may lose them.

apply the rules for determining straight baselines contained in Article 7.

⁶⁴ *Id.* at art. 10(3).

⁶⁵ *Id.* at art. 10(4).

⁶⁶ *Juridical Regime of Historic Waters, Including Historic Bays*, [1962] 2 Y.B. INT’L L. COMM’N 1, 56, U.N. Doc. A/CN.4/143.

⁶⁷ See, e.g., *United States v. California*, 381 U.S. 172, 172-73 (1965) (ruling historic bays are recognized as those over which, “a coastal nation has traditionally asserted and maintained dominion with the acquiescence of foreign nations”); see also *United States v. Louisiana*, 394 U.S. 11, 23 (1969).

⁶⁸ *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.)*, Judgment, 1983 I.C.J. 246, ¶¶ 235-40 (Oct. 12).

1. Internal Waters

Internal waters are those located landward of the baseline from which the territorial sea is measured. Lakes, rivers, some bays, harbors, canals, and lagoons are examples of internal waters. With few exceptions, coastal nations exercise the same jurisdiction and control over their internal waters and superjacent airspace as they do over their land territory. Because ports and harbors are located landward of the baseline of the territorial sea, entering a port ordinarily involves navigation in internal waters.

Outer works such as roadsteads are considered to be located in internal waters, even though the structures may be surrounded by territorial sea. Entrance into internal waters is generally the legal equivalent of entering the land territory of another nation; the coastal nation's permission normally is required. From the standpoint of international law, internal waters essentially have the same legal character as the land itself. To facilitate international communication and commerce, many nations grant foreign merchant vessels standing permission to enter internal waters in the absence of notice to the contrary.

The international community does not enjoy a right of innocent passage in internal waters, except in four very specific circumstances. First, vessels and aircraft may enter internal waters in cases of force majeure or distress. Second, where the establishment of straight baselines has the effect of enclosing as internal waters areas, which had not previously been considered as such, a right of innocent passage still exists in those waters.⁶⁹ This provision applies to transit through the internal waters created by Canada's arctic straight baselines if they are deemed to be valid. Third, land-locked states are entitled to transit passage through other states' internal waters and to enjoy equal access to maritime ports.⁷⁰ Finally, all nations enjoy the right of innocent passage throughout internal archipelagic waters that lie outside of routes normally used for international navigation.

Lakes, rivers, some bays, harbors, some canals, and lagoons are examples of internal waters, which lie landward of the baseline. Coastal nations exercise the same jurisdiction and control over their internal waters and superjacent airspace as they do over their land territory. Because ports and harbors are located landward of the baseline, entering a port ordinarily involves the consent of the port state and navigation through internal waters. There is no right of innocent passage by foreign vessels into internal waters. Unless a ship or aircraft is in distress, it may not enter internal waters without the permission of the coastal state. In special circumstances, coastal states may

⁶⁹ Law of the Sea Convention, *supra* note 55, at art. 8(2), and Convention on the Territorial Sea and Contiguous Zone art. 5(2), Apr. 29, 1985, 15 U.S.T. 1506, 516 U.N.T.S. 7477.

⁷⁰ Law of the Sea Convention, *supra* note 55, at art. 131.

be entitled to enclose limited parts of the oceans as historic internal waters, but the test for doing so is notoriously difficult.

In order to qualify as historic internal waters, a coastal state must exercise authority over the area, it must have done so for a considerable period of time, and, perhaps most importantly, the international community must have explicitly accepted the assertion of authority over the water by the coastal state.⁷¹ States may claim areas of the ocean as historic internal waters in cases in which they exercise effective and continuous control over the water, and affected states acquiesce in the exercise of that control. In the 1962 United Nations Secretariat study, the Secretary-General recognized the three factors to be considered in determining whether a body of water may be claimed as historic internal waters. First, the coastal state has to exercise authority over the area. Second, the coastal state must demonstrate a continuity of the exercise of authority. Third, the coastal state bears the burden of showing the acquiescence of foreign nations.⁷²

Acquiescence is the tacit acceptance of the coastal state's legal position by other states. Acquiescence arises as a result of failure to demonstrate non-acceptance and place the coastal state on notice that the claim has not been accepted. The conduct of operational challenges and deliverance of diplomatic demarches against excessive internal waters claims are important indicia of non-acquiescence. Canada has not met either prong of the test for Passamaquoddy Bay and, in particular, the second element of the test has not been met.⁷³

2. Territorial Seas

Cornelius Van Bynkershoek and Emmerich de Vattel defined the limits of national jurisdiction as far as a cannon ball will carry. During the seventeenth century when the two scholars were writing, the effective distance of cannon shot was about three miles.⁷⁴ Writing for the Marshall Supreme Court in 1824, Justice Joseph Story succinctly explained in *Appollon* that "the ordinary maritime jurisdiction over waters" of the United States encompassed that territory within range of cannon shot from the shore.⁷⁵ The cannon shot rule represented a seismic shift in thinking about coastal state control over water adjacent to the shoreline. The three-mile formula linked the

⁷¹ Juridical Regime of Historic Waters, *supra* note 66, at 56.

⁷² *Id.*

⁷³ See U.N. GAOR, 666th, 667th and 668th mtgs. at 1275, U.N. Doc. S/1264/Rev.1 (demonstrating statements by the United States, France, Costa Rica, the United Kingdom, Italy, the Netherlands, New Zealand, Australia, Belgium, Canada, Norway, Sweden, Denmark and Iceland)..

⁷⁴ BENJAMIN MUNN ZIEGLER, INTERNATIONAL LAW OF JOHN MARSHALL 66-67 (1939).

⁷⁵ The *Appollon*, 22 U.S. 362, 371 (1824).

seaward military reach by the coastal state with legal control, connecting the authority of law to the reach of shore battery naval gunfire.

As the lethality, accuracy, and range of coastal artillery progressed throughout the eighteenth and nineteenth centuries, the three-mile territorial sea would begin to come unstitched. After the end of the World War II, territorial sea claims extending beyond three miles became abundant. The cannon shot rule subsequently morphed into the prevailing limit of the three-mile territorial sea, which was the strongest norm in oceans law until the 1982 UNCLOS erased the distance in favor of twelve nm. From 1794 until the 1970s, the United States claimed a three-mile territorial sea.⁷⁶

Subject to several critical caveats, the coastal state may exercise sovereignty in the oceans and airspace of the territorial sea. The exercise of coastal state authority in the territorial sea also must accommodate the interests of the international community in innocent passage.⁷⁷ Innocent passage is movement by vessels on the surface for the purpose of continuous and expeditious transit of the territorial sea, or for proceeding to or from internal waters, in cases where a foreign-flagged vessel has obtained clearance by the coastal state to enter internal waters. Passage is “innocent” if it does not prejudice the “peace, good order, or security of the coastal state.”⁷⁸ Innocent passage also includes stopping and anchoring, but only insofar as such action is “incidental to ordinary navigation,” or is “rendered necessary by exigent circumstances of distress or force majeure.”

The ability to conduct innocent passage by foreign flagged vessels in a coastal state’s territorial sea is a legal right. The right is conferred by the international community through custom and state practice, and is reflected in UNCLOS. Innocent passage is not a privilege, and it is not a function of the goodwill of the coastal state or a benefit that may be parceled out by the coastal state based on political preference. Just as the international community enjoys certain rights in coastal state territorial seas, the coastal states have been afforded the right to exercise sovereignty in the territorial sea subject to the rights of the international community.

The cargo or means of propulsion of a ship is not relevant to the enjoyment of innocent passage, so long as the transit is not inconsistent with Article 19(2) of UNCLOS, which contains an exhaustive list of activities that render passage non-innocent. Passage is not innocent if it is “prejudicial to the peace, good order or security of the coastal state.”⁷⁹ Article 19 specifies

⁷⁶ See generally Henry M. Arruda, *The Extension of the United State Territorial Sea: Reasons and Effects*, 4 CONN. J. INT’L L. 697, 700-706 (1989) (discussing the history of the three-mile territorial sea in the United States).

⁷⁷ Law of the Sea Convention, *supra* note 55, at art 17.

⁷⁸ *Id.* at art. 19(1).

⁷⁹ *Id.* at art. 19(1) and 19(2)(a)(1). See also John Rolph, *How Innocent Must Innocent*

which activities are considered to be prejudicial to the peace, good order, or security of the coastal nation:

- a. Any threat or use of force against the sovereignty, territorial integrity, or political independence of the coastal nation, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;
- b. Any exercise or practice with weapons of any kind;
- c. Any act aimed at collecting information to the prejudice of the defense or security of the coastal nation;
- d. Any act of propaganda aimed at affecting the defense or security of the coastal nation;
- e. The launching, landing, or taking on board of any aircraft;
- f. The launching, landing, or taking on board of any military device;
- g. The loading or unloading of any commodity, currency or person contrary to the customs, fiscal, immigration or sanitary laws, and regulations of the coastal nation;
- h. Any act of willful and serious pollution contrary to the 1982 LOS Convention;
- i. Any fishing activities;
- j. The carrying out of research or survey activities;
- k. Any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal nation; and
- l. Any other activity not having a direct bearing on passage.⁸⁰

The provisions of Article 19 were strengthened by the complementary and mutual understanding obtained by the United States and the Union of Soviet Socialist Republics in Articles 2 and 3 of the “Jackson Hole Agreement.” Meeting at Jackson Hole, Wyoming in September of 1989, the two superpowers agreed that Article 19 contains the “exhaustive list” of activities that may be considered non-innocent. Innocent passage may not be conditioned by notification or consent by the coastal state.⁸¹ Article 2 of the Jackson Hole Agreement states that, “All ships, including warships, regardless of cargo, armament or means of propulsion, enjoy the right of innocent passage

Passage Be?, 135 MIL. L. REV. 137, 139-146 (1992) (providing an analysis of criteria for innocent passage).

⁸⁰ Law of the Sea Convention, *supra* note 55, at art. 19(2)(l).

⁸¹ Uniform Interpretation of Rules of International Law Governing Innocent Passage art. 3, U.S.-U.S.S.R., Sep. 23, 1989, 28 I.L.M. 1444.

through the territorial sea in accordance with international law, for which neither prior notification nor authorization is required.”⁸²

Based on this understanding, a determination of whether a ship’s transit through a coastal state’s territorial sea is entitled to the right of innocent passage must be based solely on the list of prohibited activities in Article 19. The 1989 framework is an improvement over the 1958 UNCLOS regime of innocent passage because the more recent treaty establishes objective standards for the meaning of the term “innocent,” which are based on specifically enumerated activities.⁸³

In sum, a determination by a coastal state of non-innocence of passage of a foreign-flagged ship cannot be made, among other things, on the basis of a ship’s purpose or type. The reference to purpose is intended to make clear, for example, that a ship navigating for the sole purpose of exercising its right of innocent passage is entitled to that right but that would not preclude a ship’s purpose from being taken into account in assessing whether that ship posed a threat of the use of force within the meaning of Article 19(2)(a).⁸⁴

B. Straits Used for International Navigation

Article 37 of UNCLOS defines passage through as a voyage “solely for the purpose of continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.” The regime of transit passage applies in such straits used for international navigation. The St. Croix River and Passamaquoddy Bay constitute a “dead-end” strait under Article 45 of UNCLOS. In such straits, the regime of non-suspendable innocent passage applies in accordance with Articles 17 through 19 of UNCLOS. A dead-end strait is one of the six species of straits used for international navigation that are recognized in UNCLOS.⁸⁵

The other five types of international straits are: geographic straits through which a high-seas corridor exists (such as the Taiwan Strait); straits governed by long-standing conventions (such as the aforementioned Strait of Magellan and the Turkish Straits, as well as the Danish Straits); straits with routes through the high seas or exclusive economic zone that are of similar convenience; straits formed by islands (e.g. the Messina Strait); and, archipelagic straits.

⁸² *Id.* at art. 2.

⁸³ S. EXEC. DOC. NO. 110-9, at 12 (2007).

⁸⁴ S. EXEC. DOC. NO. 108-10, at 9 (2004).

⁸⁵ William L. Schachte, Jr. & Peter A. Bernhardt, *International Straits and Navigational Freedoms*, 33 VA. J. INT’L L. 527 (1993).

1. Geographic Straits

Waterways that are greater than twenty-four nm wide, as measured from lawfully drawn baselines, may constitute a geographic but not a juridical international strait. In such cases, a corridor or route through the high-seas or exclusive economic zone in that area creates an “exception” to the regime of transit passage in that complete high-seas freedoms, rather than the more limited transit passage regime, would apply.⁸⁶

The Taiwan Strait and many areas of the Northwest Passage greater than twenty-four nm in width are examples of an exclusive economic zone or high-seas corridor running through a geographic strait. These cases obviate the need for applying the rules of transit passage regime in those areas in which the outer edges of the territorial seas on each side of the strait between the land areas do not overlap. High-seas freedoms apply in such straits throughout the areas that lay beyond the territorial sea.

2. Long-Standing Conventions

Second, transit passage does not affect the legal regime in straits in which passage is regulated by “long-standing international conventions in force” that specifically relate to such straits.⁸⁷ Each strait under Article 35(c) of the Convention is *sui generis*, with the rules pertaining to the strait contained in a separate and pre-existing treaty.

The Montreux Convention of 1936 is an example of such a treaty.⁸⁸ The Montreux Convention contains provisions governing the Bosphorus, transit of the Sea of Marmara, and the Dardanelles, which form Turkish Straits. By replacing the Lausanne Convention of July 24, 1923, the terms of the 1936 treaty prevail if there is a conflict between the Montreux Convention and UNCLOS.⁸⁹ During times of peace, merchant ships enjoy complete freedom of navigation through the Turkish Straits. Even in time of war, subject to some specific provisions, warships are ensured freedom of navigation.⁹⁰

Similarly, the Danish Great Belt Strait in the Baltic Sea is subject to the Treaty for the Redemption of the Sound Dues of March 14, 1857,⁹¹ and the parallel Convention for the Discontinuance of the Sound Dues, April 11,

⁸⁶ Law of the Sea Convention, *supra* note 55, at art. 36.

⁸⁷ *Id.* at art. 35(c).

⁸⁸ Montreux Convention Relating to the Regime of the Turkish Straits, July 20, 1936, 173 L.N.T.S. 213.

⁸⁹ BOLESŁAW A. BOCZEK, INTERNATIONAL LAW: A DICTIONARY 305-306 (Jon Woronoff ed., Scarecrow Press, Inc. 1st ed. 2005).

⁹⁰ Convention Relating to the Regime of the Straits art. 2, July 20, 1936, 173 L.N.T.S. 213.

⁹¹ Schachte, *supra* note 85.

1857,⁹² govern traffic through the strait. These treaties recognize “entire freedom of the navigation of the Sound and the Belts” and protect “free and unencumbered [sic] navigation.”⁹³

The Aaland Strait and the Strait of Magellan are two other straits governed by long-standing international conventions. The Convention on the Non-Fortification and Neutralization of the Aaland Islands of October 20, 1921, provides that warships are prohibited except for innocent passage.⁹⁴ For purposes of this study, however, the Strait of Magellan is more relevant—not because it is governed by a long-standing convention, but rather as an example of an international strait that penetrates the baselines and bisects the internal waters of the coastal state.

The Strait of Magellan is governed under the Boundary Treaty between the Argentine Republic and Chile, which was signed in Buenos Aires on July 23, 1881.⁹⁵ Article Five of the Treaty states that the Strait of Magellan is “neutralized for ever, and free navigation is guaranteed to the flags of all nations.”⁹⁶ Of particular note concerning the issue of Head Harbor Passage and similar to the Strait of Magellan is that traffic conducting a voyage from east to west penetrates the internal waters of Chile along the Southwestern Atlantic and emerges through the internal waters and into the territorial sea of Chile in the Southeastern Pacific.

3. Route of Similar Convenience

Third, no right of transit passage exists through a strait that contains a route through the high seas or exclusive economic zone that is of similar convenience as the strait, so long as the alternative route meets the test with respect to navigational and hydrographical characteristics.⁹⁷ This situation may arise if a coastal state chooses to maintain a high-seas corridor between two land territories by not extending its territorial seas to twelve nautical miles. Japan, for example, has elected to claim a three nm territorial sea in five key straits: the Soya, Tsugaru, Osumi, Tsushima, and Korea Straits.⁹⁸

⁹² Convention for the Discontinuance of the Sound Dues, U.S.-Den., Apr. 11, 1857, 11 Stat. 719.

⁹³ *Id.* at art. I and II.

⁹⁴ Convention Relating to the Non-Fortification and Neutralisation of the Aaland Islands art. 5, Oct. 20, 1921, 9 L.N.T.S. 211.

⁹⁵ Boundary Treaty between the Argentine Republic and Chile, Arg.-Chile, July 23, 1881, 159 Consol. T.S. 45.

⁹⁶ *Id.* at 52.

⁹⁷ Law of the Sea Convention, *supra* note 55, at art. 36.

⁹⁸ See BUREAU OF OCEANS & INT’L ENVTL. & SCIENTIFIC AFFAIRS, U.S. DEP’T OF STATE, LIMITS IN THE SEAS NO. 120, STRAIGHT BASELINE AND TERRITORIAL SEA CLAIMS: JAPAN 14-15 (1998) (stating that Japan’s five straits have a territorial sea limit of three miles, and listing Japan’s five straits; referring to the Tsushima Strait-Western Channel as the Korean Strait).

The Soya Strait divides Hokkaido and Russia's Sakhalin Island;⁹⁹ the Tsugaru Strait separates Honshu and Hokkaido;¹⁰⁰ the Osumi Strait is at the southern end of Kyushu and the East China Sea;¹⁰¹ and the Tsushima and Korean Straits separate Japan and South Korea.¹⁰² The boundaries were established in the 1970s to accommodate United States warships and submarines carrying nuclear weapons, which routinely passed through the straits on their way to the Sea of Japan.¹⁰³ If the outer limit of the territorial sea had been set at the twelve nm, nuclear-armed vessels would have crossed into Japanese waters and infringed upon the country's three non-nuclear principles of not possessing, producing, or allowing nuclear weapons in its territory.¹⁰⁴

4. Island Forming a Strait

Fourth, transit passage does not apply in straits that are formed by an island of the state bordering the strait and its mainland and where there exists seaward of the island a route through the high seas or exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics.¹⁰⁵ The Strait of Messina, bordered by Sicily and Calabria, Italy, is the classic example.

This "Messina exception" to the general rule is identified in Article 38(1) of UNCLOS.¹⁰⁶ Article 38(1) states that "transit passage shall not apply if there exists seaward of the island a route through the high seas or through the exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics."¹⁰⁷

⁹⁹ *Id.* at 16.

¹⁰⁰ *Id.* at 14.

¹⁰¹ *Id.*

¹⁰² *Id.* at 15.

¹⁰³ See, e.g., EUAN GRAHAM, JAPAN'S SEA LANE SECURITY, 1940-2004: A MATTER OF LIFE AND DEATH? 132-143 (2006) (discussing Japanese and U.S. military strategies regarding the Soviet Union during the 1970s and 1980s).

¹⁰⁴ See CHI-YOUNG PAK, THE KOREAN STRAITS 79-82 (Gerald J. Mangone ed., 1988) (explaining the precarious nature of the 12 nautical mile-territorial sea boundary in relation to Japan's nuclear policy).

¹⁰⁵ Law of the Sea Convention, *supra* note 55, at art. 38(1).

¹⁰⁶ Fabio Spadi, *The Bridge on the Strait of Messina: "Lowering" the Right of Innocent Passage?*, 50 INT'L & COMP. L.Q. 411, 412 (2001).

¹⁰⁷ Law of the Sea Convention, *supra* note 55, at art. 38(1).

5. Archipelagic Straits

International straits that are located within archipelagic waters are subject to the navigational regime of archipelagic sea lanes passage (“ASLP”).¹⁰⁸ Article 53 defines ASLP as:

The exercise in accordance with this Convention of the rights of navigation and overflight in the normal mode solely for the purpose of continuous, expeditious and unobstructed transit between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.¹⁰⁹

The definition is nearly a verbatim replica of the regime of transit passage through international straits. The regime applies to designated archipelagic sea lanes, and the coastal state has a duty to designate as sea lanes all routes normally used for international navigation and over flight.

The sea lane designations are made by the coastal state with the approval of the IMO. If the coastal state does not designate all routes normally used for international navigation, then vessels and aircraft of all nations are entitled nonetheless to utilize such routes as ASLP.

6. Dead-end Straits

Finally, there is the exception of the “dead end strait,”¹¹⁰ which applies to geographic circumstances in which high seas or the EEZ connects with the territorial seas of a state by means of a strait bordered by one or more states.¹¹¹ Ships entering the state located at the *cul de sac* end of the strait are entitled to non-suspendable innocent passage in order to ensure that the port state is not landlocked, with a territorial sea leading nowhere.¹¹²

The Strait of Tiran is such a strait, and there is an agreement associated with passage through the waters.¹¹³ Moreover, warships and other sovereign immune vessels are not legally required to comply with sea lanes and traffic separation schemes while conducting innocent passage through such straits, but they must exercise due regard for the safety of navigation.

¹⁰⁸ *Id.* at art. 46, 47, and 53.

¹⁰⁹ *Id.* at art. 53.

¹¹⁰ Marco Roscini, *The Navigational Rights of Nuclear Ships*, 15 LEIDEN J. OF INT’L L. 251, 259 (2002)

¹¹¹ Law of the Sea Convention, *supra* note 55, at art. 38(1) and 45(1)(b).

¹¹² See, e.g., William L. Schachte, Jr., Rear Admiral, Int’l Straits and Navigational Freedoms, Remarks at the 26th Law of the Sea Institute Annual Conference 12-13 (June 22-26, 1992), available at <http://www.state.gov/documents/organization/65946.pdf>.

¹¹³ Law of the Sea Convention, *supra* note 5, at art. 45(1)(b).

F. Transit Passage through International Straits

Vessels and aircraft exercising the right of transit passage through or over a strait are required to proceed without delay and may not threaten or use force against the sovereignty, territorial integrity, or political independence of states bordering the strait.¹¹⁴ Ships and aircraft also shall refrain from activities except those that are incident to normal modes of continuous and expeditious transit, unless rendered necessary by *force majeure* or by distress.¹¹⁵ Ships have the obligation to comply with generally accepted international practices for ensuring the safety of life at sea, including the International Regulations for Preventing Collisions at Sea and internationally accepted regulations for the control of marine pollution.¹¹⁶

Freedom of navigation and over flight solely for the purpose of continuous and expeditious transit of a strait do not preclude passage through a strait for the purpose of entering, leaving, or returning from a state bordering the strait, subject to conditions of port entry of the state.¹¹⁷

Coastal states that border international straits benefit from a number of provisions that help them implement their responsibilities in the strait. These provisions permit states bordering straits to exercise a degree of control, with the important stipulation that the rules must be in accord with international standards and applied in a manner that is non-discriminatory. States bordering straits may designate sea lanes and prescribe traffic separation schemes for navigation in the straits when such regulations are necessary to promote the safe passage of ships.¹¹⁸ These regulations must be in conformity with generally accepted international regulations in order to prevent states bordering straits from imposing excessive or unreasonable requirements onto international shipping.¹¹⁹

Before states bordering straits may designate or prescribe regulations, they are required to refer proposals to the IMO for adoption.¹²⁰ Once the IMO has adopted the proposals and those proposals are duly designated and publicized by the state bordering the strait, ships in transit passage have a duty to respect approved sea lanes and traffic separation schemes.¹²¹

Within limits, states bordering straits may adopt additional laws and regulations relating to transit passage through straits. In addition to the authority

¹¹⁴ *Id.* at art. 39(1)(a).

¹¹⁵ *Id.* at art. 39(1)(c).

¹¹⁶ *Id.* at art. 39(2)(b).

¹¹⁷ *Id.* at art. 38(2).

¹¹⁸ *Id.* at art. 41(1).

¹¹⁹ *Id.* at art. 41(3).

¹²⁰ *Id.* at art. 41(4). *See also* Int'l Mar. Org., Implications of the United Nations Convention on the Law of the Sea for the Int'l Mar. Org., 9, LEG/MISC/6 (Sept. 10, 2008).

¹²¹ Law of the Sea Convention, *supra* note 55, at art. 41(7).

to adopt laws relating to the safety of navigation and to institute traffic separation schemes, states bordering straits have several authorities to help to protect and preserve the ocean environment. Littoral state laws may be designed to prevent, reduce, and control pollution by giving effect to international regulations regarding “discharge of oil, oily waste and other noxious substances” in the strait.¹²² This provision permits regulation solely of vessel discharge that already is regulated by international instruments. The rule does not entitle the littoral state to develop regulations affecting foreign-flagged vessel regulations concerning construction, design, equipping, and manning of ships, however.

States bordering straits also may adopt laws and regulations relating to fishing, require the stowage of fishing gear during transits, and implement a wide range of customs, fiscal, immigration, and sanitary laws to better protect the public health.¹²³ Foreign ships exercising the right of transit passage shall comply with the regulations, but the rules must not discriminate in form or in fact among foreign flagged vessels.¹²⁴ Moreover, UNCLOS does not welcome novel or outcome-based interpretations of these rules. The application of coastal state laws and regulations shall not have the practical effect of denying, hampering, or impairing the right of transit passage.¹²⁵ Lastly, unlike innocent passage through territorial seas, states bordering international straits may not suspend transit passage.¹²⁶

IV. CONCLUSION: VESSEL TRANSITS THROUGH HEAD HARBOR PASSAGE

The key question in the international law of the sea is whether the United States has an unfettered right to receive foreign-flagged ships at its ports in Maine, even if the vessels can reach the United States ports only by transiting Canadian waters. Professor Jon M. Van Dyke has written the most detailed analysis of this question.¹²⁷ While there is much to credit Van Dyke’s carefully written account, he abruptly stops short of a complete analysis of the legal issues that spring from the law of the sea. Professor Ted McDorman, in contrast, in a memorandum prepared for a private client, determined that the waterway is subject to the exercise of innocent passage by foreign-flagged vessels, despite resistance in New Brunswick.¹²⁸ Likewise, Professor Ber-

¹²² *Id.* at art. 42(1)(b).

¹²³ *Id.* at art. 42(1)(c) and (d).

¹²⁴ *Id.* at art. 42(2) and (4).

¹²⁵ *Id.* at art. 42(2).

¹²⁶ *Id.* at art. 44.

¹²⁷ Van Dyke, *supra* note 6, at 59-60.

¹²⁸ See Anne Ravana, *Canada Opposes LNG Terminals; Head Harbor Safety, Environment at Risk*, Bangor Daily News, Feb. 15, 2007, at A1 (stating that Professor McDorman conclud-

nard Oxman of the University of Miami has also suggested that Canada has an obligation to permit foreign-flagged vessels general access to United States ports through Passamaquoddy Bay.¹²⁹

Unlike the writings of Professors McDorman and Oxman, Professor Van Dyke focused on constructing an argument to demonstrate that the Bay of Fundy is a juridical bay under Article 10(4) of UNCLOS. The Bay of Fundy is between thirty to fifty miles in width, but the combination of islands and narrowing at the mouth allow closing lines that extend a total of less than twenty-four nm across the bay.¹³⁰

In the alternative, Van Dyke wrote that Canada's historical claims over the waters constitute a prima facie case that the offshore area constitutes an historic bay.¹³¹ Exercising historic title over the waters, Canada may exclude the entry of foreign-flagged ships. Indeed, in 1962 when Soviet fishing vessels entered the Bay of Fundy, Canada complained that the waters were "Canadian national waters."¹³² The USSR relented and agreed to respect the claim. Emeritus Professor and Canadian scholar, Donat Pharand, although somewhat more circumspect, also appears to regard the Bay of Fundy as Canadian historic internal waters.¹³³

But the Bay of Fundy was not regarded as a Canadian historic bay during the nineteenth century, and is not thought of in those terms today—it is instead a result of adjudication reached in the mid-nineteenth century. The United States-United Kingdom Washington Arbitration Agreement, for example, determined that one of the large headlands of the Bay of Fundy is in the United States: "The islands of Grand Menan (British) and Little Menan (American) are situated nearly on a line from headland to headland . . . The conclusion is . . . irresistible that the Bay of Fundy is not a British bay."¹³⁴

ed that the Head Harbor Passage is a territorial sea subjecting it to the U.N. law of the seas).

¹²⁹ See Peter Morton, *LNG: The Great Divide: The United States Says Canada Will be Violating International Laws by Refusing to Allow Liquefied Natural Gas Tankers Through Head Harbour Canada Says LNG tankers in Head Harbour are environmentally dangerous, Potential Threats and Just Plain not Wanted*, National Post's Financial Post & FP Investing, Nov. 18, 2006, at FP1 (stating that Professor Oxman believes that the Canada likes to overlook parts of the bill that are in their favor).

¹³⁰ Van Dyke, *supra* note 6, at 52-55.

¹³¹ *Id.* at 56-57.

¹³² See G. V. La Forest, *Canadian Inland Waters of the Atlantic Provinces and the Bay of Fundy Incident*, 1963 Can. Y.B. Int'l L. 149, 149-50 (1963) (stating that the Canadian Prime Minister announced that the Bay of Fundy was always Canadian waters and ordered a patrol boat to request a Russian fleet depart from the bay).

¹³³ See DONAT PHARAND, *CANADA'S ARCTIC WATERS IN INTERNATIONAL LAW* 111 (1988) (stating that the Canadian Territorial Sea and Fishing Zones Act of 1964 definition of territorial waters is inclusive and therefore may include any maritime areas of the sea that may be included on the basis of geography or history or both, including the Bay of Fundy).

¹³⁴ The Washington Arbitration Agreement, U.S.-U.K., 184, Feb. 8, 1953 in 4 John Bassett Moore, *History and Digest of International Arbitrations to Which the United States has Been a*

Van Dyke circumvents the history of a shared waterway by drawing the closing line much more narrowly across the bay to try to create a juridical bay.

Whereas the United States-United Kingdom Washington Arbitration Agreement considered the Bay of Fundy in its natural formation as extending a width of sixty-five to seventy-five miles, Van Dyke proposes drawing the closing mouth at the twenty-four nm mark—thereby converting the body of water into historic internal waters of Canada. Much like Hudson Bay, Van Dyke suggests that the Bay of Fundy constitutes internal historic waters belonging to Canada.¹³⁵ Consequently, Van Dyke's approach is that since the waters constitute a bay, its legal character is internal water of Canada. Yet another scholar has suggested that Passamaquoddy Bay may be claimed as the combined historic internal waters of the United States and Canada.¹³⁶

Utilizing the measure of straight baselines provided for in UNCLOS Article 7, Van Dyke suggests that Canada could clarify its claim over the Bay of Fundy and Passamaquoddy Bay—establishing both clearly as Canada's internal waters.¹³⁷ Finally, Van Dyke concluded: "If, however, the waters in Head Harbor Passage are the internal waters of Canada . . . then Article 45(1)(b) would not apply to this strait, and it would be subject to the complete sovereign control of Canada."¹³⁸ In the end, Van Dyke believes that his finding that Passamaquoddy Bay constitutes historic internal waters forecloses any United States rights to transit the bay.

There are two reasons that Van Dyke's conclusion is incorrect. First, the waters of Head Harbor Passage constitute territorial seas rather than historic internal waters, as Canada has never met the three-part test required for historic internal waters. In particular, Canada is lacking the acquiescence of its claim by the international community, and most of all, the United States. Second, even if one considers the waters of Head Harbor Passage to be historic internal waters, that legal status does not preclude application of Article 45(1)(b) and the right of non-suspendable innocent passage through a dead-end strait.

This article concludes that the legal nature of Passamaquoddy Bay is that of a dead-end strait—a body of water that is characterized as territorial sea. As a dead-end strait, Head Harbor Passage is governed under the rules set forth in Article 45(1)(b) of UNCLOS, which addresses transits between "a part of the high seas or exclusive economic zone and the territorial sea of a foreign State." This analysis is consistent with the United States view that

Party 4344 (1898).

¹³⁵ Van Dyke, *supra* note 6, at 59-60.

¹³⁶ Ewen, *supra* note 14, at 171.

¹³⁷ Van Dyke, *supra* note 6, at 61.

¹³⁸ *Id.* at 63.

Head Harbor Passage is a dead-end strait that leads through Canadian territorial seas and into United States waters.¹³⁹

The understanding that foreign-flagged vessels have access to dead-end straits is longstanding. The 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, for example, foresaw non-suspendable innocent passage in international straits, including dead-end straits. Article 16(4) of the 1958 Geneva Convention states that dead end straits are those “used for international navigation between one part of the high seas . . . and the territorial sea of a foreign state.”¹⁴⁰ The navigational regime of non-suspendable innocent passage for the Strait of Tiran, a prominent dead-end strait, was imported into the Israeli-Egyptian peace treaty as a key pillar of peace between the two nations.¹⁴¹

If the regime of non-suspendable innocent passage is not recognized for Head Harbor Passage, then the United States, having ports in Maine situated at the end of a *cul de sac*, is left with “a territorial sea leading to nowhere.”¹⁴² Furthermore, this position would make the United States, in part, a landlocked and geographically disadvantaged state,

Domestic Canadian politics, rather than studied legal analysis, play a powerful, if not decisive, role in forming the country’s rock-solid opposition to United States LNG tanker traffic through Harbor Head Passage. For politicians in New Brunswick and Ottawa, asserting exclusive claims over Passamaquoddy Bay is a low-risk, high-return proposition. Transit of LNG tankers has only weak resonance within the United States body politic. Actions by other nations that insult the principle of freedom of navigation attract no attention in the United States—perhaps other than support by like-minded champions of coastal state authority. In Canada, however, the issue is magnified because of the role of the United States in the dispute. Head Harbor Passage has immense national currency and political cachet in Ottawa, despite the small number of Canadians that reasonably could be affected.

Furthermore, all of the benefits for allowing LNG tankers inure to the United States, whereas any potential costs of environmental catastrophe are borne or at least shared by Canada. Likewise, whereas Canada can internalize the benefits of excluding LNG tankers, the costs of such a decision are

¹³⁹ Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, July 28, 1994, 1836 U.N.T.S. 41 (1994).

¹⁴⁰ Convention on the Territorial Sea and Contiguous Zone, *opened for signature* Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205 (entered into force Sept. 10, 1964).

¹⁴¹ See, e.g., Mohammed El Baradei, *The Egyptian-Israeli Peace Treaty and Access to the Gulf of Aqaba: A New Legal Regime*, 76 AM. J. INT’L L. 532, 534 (1982) (showing that the principle of non-suspendable innocent passage came about during the first half of the 19th century due to the need for raw materials and new markets following industrialization and the commencement of the steam age).

¹⁴² Schachte, Jr. & Bernhardt, *supra* note 85, at 534-35.

imposed elsewhere—on the United States, the United States natural environment (that must continue to burn home heating oil instead of clean, natural gas), and the long-standing right of freedom of the seas, which is a common heritage of mankind.

Coastal state, security, sovereignty, and environmental protection are caught up in an amorphous “propensity to possess, occupy and defend” areas such as Passamaquoddy Bay.¹⁴³ This political phenomenon may be acutely described by public choice theory, as Canada makes rational choices, harvests the benefits of the choices, and shifts the costs of its decision onto the United States. This dynamic reflects a classic scenario of legal dysfunction that fits the model outlined by Mancur Olson in his seminal work *The Logic of Collective Action*.¹⁴⁴ Olson’s theory shows how political actors seek to absorb concentrated, non-collective benefits, while deflecting diffuse costs. One solution: make adjustments in the cost-benefit model by shifting more of the benefits to Canada. Canada already enjoys a massive surplus of hydrocarbon energy sources, so sharing regasified natural gas may not be attractive.

But the two sides should begin to think more creatively about how to resolve the impasse. The parties could utilize the dispute settlement procedures, but until the United States accedes to UNCLOS, the procedures are unavailable. If the United States becomes a party to the treaty, dispute settlement procedures are likely to be adjudicated in favor of the United States. Bilateral discussions could also move away from the legal issues and instead explore ways in which Canadian living in New Brunswick have an incentive to cooperate with the DELNG proposal.

¹⁴³ ROGER E. KASPERSON & JULIAN VINCENT MINGHI, *THE STRUCTURE OF POLITICAL GEOGRAPHY* 71 (1969). See also JAMES KRASKA, *MARITIME POWER AND THE LAW OF THE SEA* 23 (2011).

¹⁴⁴ MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 71-73 (1965).