CANADA'S AUTHORITY TO PROHIBIT LNG VESSELS FROM PASSING THROUGH HEAD HARBOR PASSAGE TO U.S. PORTS

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I. INTRODUCTION

Three U.S. companies are seeking authorization to build liquid natural gas (LNG) terminals in eastern Maine on Passamaquoddy Bay, across from New Brunswick, Canada. The three companies are: (1) Downeast LNG, which seeks to develop a terminal at Robbinston, Maine; (2) Quoddy Bay LLC, which seeks to develop an LNG terminal on Indian tribal land at Sipayik, Maine; and (3) North East Energy Development Company LLC, which seeks to develop a terminal on the Saint Croix River (a tributary to Passamaquoddy Bay) at Red Beach in Calais, Maine. To deliver the LNG to any one of these terminals, a 300-meter-long tanker would travel at least once a week through Head Harbor Passage between the Canadian islands of Campobello and Deer Island, in Canadian waters, and then would return back through this same passage. If all three terminals were to open, an average of six LNG tanker passages would take place each week through Head Harbor Passage.

Canada views Head Harbor Passage as an internal Canadian waterway, and in 1982 issued regulations limiting the amount of oil that can be transported through the passage.[1] About 120 foreign-flag ships pass through Head Harbor Passage each year, usually to pick up paper pulp and other forest products destined for European ports.[2] Some U.S. ships have used this passage in previous years, and, in the past few years, the United

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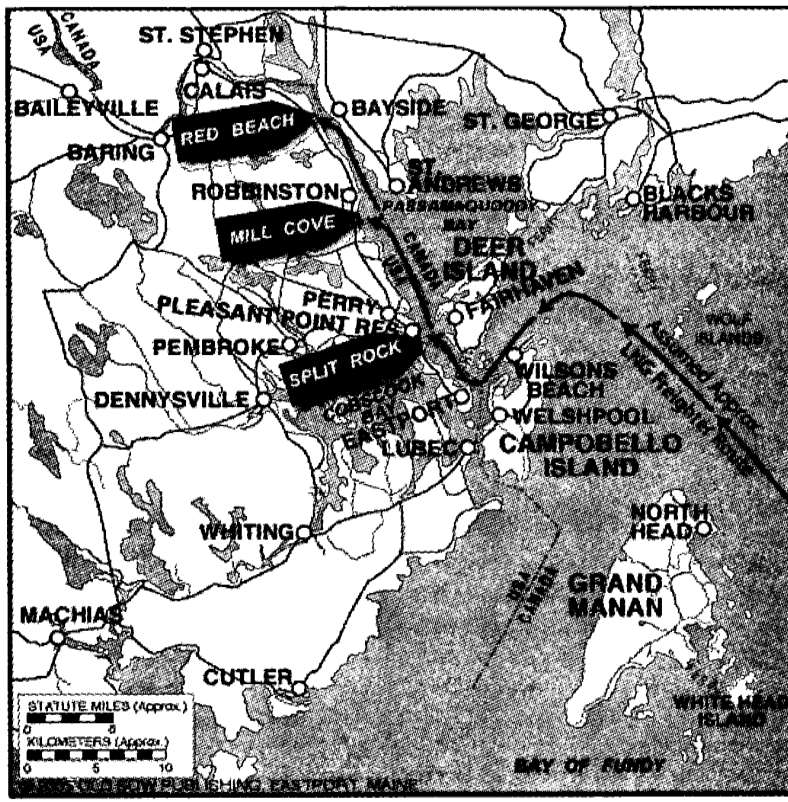
1. *See infra* text accompanying notes 21 & 24.

2. Peter Morton, *LNG: The Great Divide*, FIN. POST (Toronto), Nov. 18, 2006, *available at* http://www.finacialpost.com/story-printer.html?id=c4436604-d75c-4e82-be1f-d01.cb057df63 (last visted Nov. 29, 2008).

States has sent military vessels through Head Harbor Passage to Fourth of July celebrations in Eastport, Maine.



The Canadian Government announced on February 14, 2007, that it would prohibit the "passage of LNG tankers through the environmentally-sensitive and navigationally-challenging marine and coastal areas of the sovereign Canadian waters of Head Harbour Passage," because such passage would "present risks to the region of southwest New Brunswick and its inhabitants that the Government of Canada cannot accept."[3] Canada's Ambassador to the United States, Michael Wilson, expressed this opposition to LNG passage in a letter written to Joseph T. Kelliher, Chair of the U.S. Federal Energy Regulatory Commission (FERC).[4] This action

3. Letter from Michael Wilson, Can. Ambassador to the U.S., to Joseph T. Kelliher, Chair of U.S. Fed. Energy Regulatory Comm'n (Feb. 14, 2007) (on file with author).

4. *Id.*

followed months of statements explaining Canada's concern over the LNG plans. On March 31, 2006, New Brunswick's senior minister in the federal cabinet stated that the Canadian Government views LNG as dangerous cargo that can be banned from transport in Canadian waters.[5] On September 26, 2006, Prime Minister Stephen Harper was explicit in confirming this view to the House of Commons:

> Mr. Speaker, I gather there are some representatives of that project [Downeast LNG] lobbying around the Hill today, so *let me be absolutely clear.* 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 Harbour and we will continue to do so.[6]

Officials of the U.S. companies have asserted that their ships have the right of innocent passage through the Canadian waters that lead into Passamaquoddy Bay. Dean Girdis of Downeast LNG of Washington, D.C. asserted that the United States would not back down on the issue because it would set a dangerous international precedent.[7] Speaking to the *New Brunswick Telegraph-Journal*, Girdis said, "[i]f Canada does not permit freedom of navigation in this particular site, it puts to risk several other places in the world where billions and trillions of dollars worth of cargo go through territorial seas, places like the Taiwan Strait or the Strait of Bahrain."[8] After the Canadian announcement opposing the passage, Girdis noted that "the leading Canadian legal maritime expert, Ted McDorman ... concluded Head Harbor Passage is, in fact, a territorial sea," and thus that vessels have the right of innocent passage through this waterway.[9] In a more formal document explaining its position, Downeast LNG has stated that "[t]he International Boundary Waters Treaty Act of 1909 between the U.S. and Canada and the United Nations Conventions of the Law of the Seas [sic] support the transit of Canadian waters by LNG tankers calling on a U.S. port (and vice versa)."[10]

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5. Chris Morris, *N.B. Minister in Federal Cabinet says Ottawa Considers LNG Dangerous Cargo*, TELEGRAPH-J. (St. John, N.B.), Mar. 31, 2006.

6. 141 HANSARD 53, 39th Parl., 1st Sess., at 1455 (2006) (emphasis added).

7. Morris, *supra* note 5.

8. *Id.*

9. Anne Ravana, *Canada Opposes LNG Terminals Head Harbour Safety, Environment at Risk*, BANGOR DAILY NEWS, Feb. 15, 2007, at A1; Rob Linke, *U.S. Oks Pipeline for LNG*, N. B. TELEGRAPH-J. (St. John, N.B.), Feb. 23, 2007, at 8.

10. DOWNEAST LNG, QUESTION & ANSWER BRIEFING 24 (2005). This paper does not address the claim regarding the 1909 International Boundary Waters Treaty, because it is

Those supporting the LNG shipments have argued that the Canadian position is inconsistent, because it allows LNG shipments to terminals in New Brunswick and Nova Scotia, and because, in their view, all cargo ships have a right of innocent passage through Head Harbor Passage pursuant to customary international law and the 1982 United Nations Law of the Sea Convention (Law of the Sea Convention).[11] An attorney for Quoddy Bay LLC has written:

> [Greg Thompson, Minister of Veterans Affairs in the Canadian Cabinet,] asserted his opposition to certain LNG projects (that is, only those in Maine but not those in New Brunswick or Nova Scotia) . . . [He] indicated that Canada would stop the passage of LNG carriers through Head Harbor Passage the same way they

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generally assumed that this treaty relates to the bodies of freshwater that are shared between Canada and the United States, i.e., the lakes and related rivers. Treaty between the United States and Great Britain Relating to Boundary Waters between the United States and Canada, U.S.-Gr. Brit., Jan. 11, 1909, 36 Stat. 2448. The text of the Preliminary Article to the treaty reads as follows:

> For the purpose of this treaty boundary waters are defined as the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and the Dominion of Canada passes, including all bays, arms, and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary.

Id. Article I of this treaty contains the following language:

> The High Contracting Parties agree that the 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 and 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.

Id. art. I. If this provision were somehow deemed to be applicable to Head Harbor Passage, it would permit Canada to apply "laws and regulations," so long as they are applied in a nondiscriminatory basis. A Canadian law restricting vessels above a certain size in certain locations in order to protect a fragile environmental zone, for instance, would, therefore, be consistent with this treaty.

11. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter Law of the Sea Convention]. Canada ratified the United Nations Convention on the Law of the Sea in November 2003, but the United States has not yet ratified it. *See* DIV. FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, UNITED NATIONS, CHRONOLOGICAL LISTINGS OF RATIFICATIONS OF, ACCESSIONS AND SUCCESSIONS TO THE CONVENTION AND THE RELATED AGREEMENTS AS AT 07 NOVEMBER 2008 (2008), *available at* http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#The United Nations Convention on the Law of the Sea.

> worked in the 1970's to stop the threat of oil tankers going on a similar route to the proposed Pittston refinery in Eastport. . . .
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> Thompson's statement that Canada can stop ships traveling through Head Harbor Passage may have overlooked Canada's adoption in November 2003 of the United Nations Convention on the Law of the Sea. This treaty, which now binds Canada, requires that they give any ship the right of 'innocent passage' through that strait. Thus foreign vessels of any state 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.
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> Quoddy Bay can only hope that Canada lives up to its treaty obligations and applies the same standards to LNG carriers moving through Head Harbor Passage as it will to those moving through the Canso Strait to Bear Head and other Canadian waters.[12]

Another U.S. ocean law expert, Professor Bernard Oxman of the University of Miami, has expressed the opinion that "Ottawa has consistently taken the somewhat liberal view of how it claims waters for its own." Oxman has also stated that "Canada likes to overlook certain parts of the treaty," referring to the Law of the Sea Conention.[13]

II. PASSAMAQUODDY BAY

Passamaquoddy Bay opens into the Bay of Fundy, which is internationally recognized as an area of rich biological diversity, and is famous for its dramatic daily tidal action. At Eastport, Maine, the mean tidal variation is 18.4 feet and the maximum tidal variation is 20.9 feet.[14] The Quoddy region is a critical breeding area for herring and cod and is a feeding area for migratory birds and marine mammals, including minke whales, humpback whales, finback whales, rare North Atlantic right whales, and harbor porpoises. This region is also renowned for its outstanding scenic vistas.

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

13. Morton, *supra* note 2.

14. DOWNEAST LNG, *supra* note 10, at 24.

A. Safety Concerns

The Maine coast adjacent to Passamaquoddy Bay is a particularly inappropriate location for an LNG terminal because the narrow passages of suitable depth within the Western Passage of Passamaquoddy Bay and in the Saint Croix River present the possibility of a collision. Furthermore, the coastal populations adjacent to the bay would be put in grave risk should such an event occur. Head Harbor Passage is known for strong tidal action, rip tides, and whirlpools, and is only 1,800 feet wide at its narrowest point. Three areas within the Canadian waters of Head Harbor Passage have hazardous rock outcroppings, as do two areas in the Western Passage between Deer Island and the Maine coast (Clark Ledge and Dog Island). As the tide moves in and out, rip tides and whirlpools form, and the current is difficult to judge. The Old Sow Whirlpool, one of the world's largest ocean whirl hazards, requires transiting ships to hug the Eastport shore, a residential area near Clark Ledge and Dog Island. Adding to this hazardous route are fog and reduced visibility, which are both common and unpredictable.[15]

The guidelines developed by the Society of International Gas Terminal and Tanker Operators (SIGTTO) emphasize that terminals should be sited in sheltered, remote areas where other ships do not pose a risk of collision.[16] The risks of collision must be taken very seriously because LNG tankers are vulnerable to penetration by collision if they come into contact with any heavy displacement ship going more than the most moderate of speeds. Ships passing near to berthed LNG carriers can cause the carrier to surge or range along the jetty, threatening the moorings, and therefore these jetties should not be located near channels used by large ships. Indeed, all nearby traffic can present ignition risks that pose serious dangers to the gas on the LNG carriers. Thus, even pleasure craft and fishing vessels can pose a threat to the LNG carriers, and enforcement of exclusion zones in other areas has proved to be difficult. Under U.S. law, safety and security zones come into effect

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15. Jeffrey D. Ewen, Comment, *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, 168 (1976) (noting that Passamaquoddy Bay's "myriad of rocks and islands, its strong tides, and dense fogs create serious hazards for navigation"). "There is an average of 60 days of fog and 120 days of precipitation each year, and on 19 days in a typical year the wind blows at 32 knots or more—too strong for the tugs that would be required to guide the tankers to and from the open sea." *Id.* at 168-69 n.8 (citing MAINE TIMES, May 4, 1973, at 15).

16. *See, e.g.*, SOC'Y OF INT'L GAS TANKER AND TERMINAL OPERATORS LTD., SITE SELECTION AND DESIGN FOR LNG PORTS AND JETTIES (1997).

when LNG vessels transit and dock in a harbor in inland waters.[17] During transit, these zones are typically 500 yards (almost one-third of a mile) along the sides of the vessel, two miles ahead, and one mile behind.[18] When the ship is docked, the security zone can range from one-hundred to 1000 yards.[19] At present, some cargo vessels use these waters to travel to the ports of Eastport, Maine, and Bayside, New Brunswick, and fishing vessels and pleasure craft are numerous throughout the area. Downeast LNG has stated that "[s]ome water-borne activities will be restricted only during ship transit and offloading, about once a week. Ship transit from Head Harbor Passage to the pier is expected to take less than 2 hours, and offloading about 12-14 hours."[20] Potential spills from fully-loaded LNG tankers navigating through narrow waterways present fire dangers to all those located on the shoreline.

The terminal area also presents significant hazards, including thermal radiation from fires burning above a liquid spill on the site, combustible vapors being driven by wind to adjacent areas, and terrorist attacks on the safety containment systems leading to fires and spillage into ground and surface water systems.[21]

B. The Canadian Reaction to the Proposed Pittston Oil Refinery in Eastport in the Mid-1970s

The Canadian Government repeatedly voiced its opposition to the proposal to put an oil refinery in Eastport, which sits at the eastern edge of Maine, because the oil tankers would have had to proceed through Head Harbor Passage to get to this location. A study commissioned by Canada's Department of Fisheries and Environment concluded that the tides and

17. 33 C.F.R. § 3.05-10 (2007).

18. DOWNEAST LNG, *supra* note 10, at 21.

19. *Id.* at 22.

20. *Id.* at 23.

21. *See, e.g.*, RICHARD A. CLARKE, LNG FACILITIES IN URBAN AREAS: A SECURITY RISK MANAGEMENT ANALYSIS FOR ATTORNEY GENERAL PATRICK LYNCH, RHODE ISLAND 5 (2005) (explaining that "[b]oth the proposed urban LNG off loading facility and the proposed LNG tanker transit through 29 miles of Rhode Island have security vulnerabilities that are unlikely to be successfully remediated"); JAMES A. FAY, PUBLIC SAFETY ISSUES AT THE PROPOSED PLEASANT POINT LNG TERMINAL 3 (2004) ("FERC's regulations ignore the greatest risks of all, that foreign or domestic terrorists could destroy the storage tank primary and secondary containment systems, or the LNG tanker cargo hold, allowing LNG to spill unhindered onto ground or water, where it would most likely burn."). In March 2007, the U.S. Government Accountability Office reported that fire from a terrorism attack against an LNG tanker "could ignite so fiercely it would burn people one mile away." *Study: LNG Tanker Blast Could Burn Victims One Mile Away*, N. ADAMS TRANSCRIPT (Mass.), Mar. 15, 2007.

currents of this region "would make it extremely difficult, and at times impossible, to [maneuver] and berth very large crude carriers," and that Head Harbor Passage had "a high level of navigational risk."[22] On December 1, 1976, H.B. Robertson, Under Secretary of State for External Affairs wrote to the Vice President of the Pittston Company explaining that "the risks inherent in the transport of a large volume of pollutants through Head Harbour Passage would be unacceptable, . . . that the Government was therefore opposed to such transport in these difficult waters," and that the Canadian Government would not approve or permit oil tankers to transit Canadian waters to a refinery in Eastport.[23] Subsequently, on February 11, 1982, Canada promulgated Oil Carriage Limitation Regulations, pursuant to the Canada Shipping Act, stating that vessels passing through Head Harbor Passage could not carry more than 5000 cubic meters of oil.[24]

III. ARE THE WATERS IN HEAD HARBOR PASSAGE THE "INTERNAL WATERS" OF CANADA?

A. The Bay of Fundy Seems to Qualify as a Juridical Bay under Article 10 of the Law of the Sea Convention

The Bay of Fundy is a dramatic body of water known for its fifty-foot tidal fluctuations. It extends between Nova Scotia and New Brunswick for approximately one-hundred miles. It then branches into two directions fifty miles through the Minas Channel into Minas Basin and Cobequid Bay in Nova Scotia, and into the Chignecto Bay between the two provinces. The Bay of Fundy is thirty to fifty miles in width for most of the length of its main body; however, its entrance has small and large islands across it. This complicates the determination of the width of the entrance. Grand Manan

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22. Linke, *supra* note 9, at 8.

23. Letter from H.B. Robertson, Under Sec'y of State for External Affairs, to A.F. Kaulakis, Vice President of the Pittston Co. (Dec. 1, 1976), *quoted in*, SAVE PASSAMAQUODDY BAY/CANADA, BRIEFING NOTE: REGULATING A BAN ON LNG TANKERS IN HEAD HARBOUR PASSAGE (2006), www.saveourbay.ca/files/Prime%20Minister%20-%20Nov%2016-06.doc.

24. Canada Shipping Act, Regulations Limiting the Quantity of Oil That May Be Carried on Board Oil Tankers in the Waters Within Head Harbour Passage, New Brunswick (Shipping Act), SOR/1982-244 (Can). A report issued by Downeast LNG stated: "We also understand that the regulations passed in the 1970s restricting the transit of crude oil tankers through Head Harbor [P]assage to the proposed Piston [*sic?*] Refinery at Shackford Head were rescinded by the government." DOWNEAST LNG, *supra* note 10, at 24.

Island, which has a population of approximately 2500,[25] stands dramatically astride the Bay's entrance in its northwest sector. The island is surrounded by a cluster of smaller islets, including, to the southeast, White Head Island and Kent Island. Then, five miles southeast of Kent Island is Old Proprietor's Shoal or Old Proprietor's Ledge, a "rock island above sea level at low tide on which a beacon has been placed."[26] This feature, the site of the October 25, 1909 crash of the steamship *Hestia*, which caused the death of thirty-four crew members,[27] is a navigational hazard. It is also a favorite spot for groups to visit in search of unusual birds, such as razorbills, max, soothy and greater shearwaters, Wilson's and Leach's storm-petrels, and poimarine and parasitic jaegers.[28] About five miles (eight kilometers) south of Kent Island is Gannet Rock. In the southeast corner of the Bay of Fundy's front, Digby Neck, Long Island, and Brier Island form the entrance-headland on the Nova Scotia side.

The distances across the waters between these island features are less than twenty-four nautical miles, which is the maximum length allowed for a closing line of a juridical bay under Article 10(4) of the Law of the Sea Convention.[29] The distance from Old Proprietor's Ledge to Long Island, Nova Scotia is 20.236 nautical miles at low tide; the distance from Gannet Rock to Brier Island is 23.232 nautical miles at low tide; and the distance from Black Rock off of the eastern coast of White Head Island to Tiverton, at the tip of Long Island, is 23.976 nautical miles at low tide.[30]

Article 10(4) refers to the "natural entrance points of a bay" without requiring that these points be connected directly to a land mass.[31] The

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25. The Canadian Encyclopedia, Grand Manan Island, http://www.thecanadian encyclopedia.com/index.cfm?PgNm=TCE&Params=A1SEC821450 (last visited Sept. 25, 2008).

26. 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, 164. Professor Girard Vincent La Forest subsequently served on the Supreme Court of Canada from 1985 to 1997.

27. Government of New Brunswick, Grand Manan Island—Shipwrecks, http://www.gnb.ca/cnb/grand/ship-e.asp (last visited Sept. 25, 2008).

28. Ralph Collier, *Bird Watching on Canada's Grand Manan Island*, MAIN LINE TIMES (Montgomery County, Pa.), Oct. 27, 2004, at 7.

29. Law of the Sea Convention, *supra* note 11, art. 10(4) ("If the distance between the low-water marks of the natural entrance points of a bay does not exceed 24 nautical miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.").

30. These distances were supplied by Grand Manan fisher Laurence Cook (who took the measurements off his plotter) to Janice Harvey, Fundy Baykeeper Director, Conservation Council of New Brunswick, Apr. 25, 2007.

31. *See infra* text accompanying note 48.

"natural entrance points" into the Bay of Fundy are certainly the waters between the features described above, and thus it would appear that the Bay of Fundy qualifies as a juridical bay under Article 10 of the Law of the Sea Convention.

It is logical to consider the location of the islands at the entrance to the Bay of Fundy in determining whether it qualifies as a juridical bay because the seminal case that established the right of coastal countries to claim internal waters—the 1951 *Anglo-Norwegian Fisheries Case*[32]—explained that "*the large and small islands* [along the northern Norwegian coast], mountainous in character, the islets, rocks and reefs, some always above water, others emerging only at low tide, *are in truth but an extension of the Norwegian mainland.*"[33] Certainly the Canadian islands at the mouth of the Bay of Fundy play that same role in being inextricably linked with the Canadian mainland.[34]

The term "natural entrance point" is not further defined in the Law of the Sea Convention, but it is significant that these words selected for use in Article 10 of the Convention (and in its predecessor, Article 7 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone)[35] rather than words such as "headlands" or "*inter fauces terrae*," which were used in previous documents and commentary.[36] This change was initiated by the International Law Commission in its 1955 and 1956 draft articles, which "intended to favor a more functional, descriptive approach to identify the entrance of an indentation."[37] The change was designed to broaden the types of features that could be considered as marking the natural entrance to an indentation, and "it is clear from the second sentence in paragraph three [of Article 10] and related legislative history that the drafters envisioned islands as creating natural entrances to an indenta-

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32. Anglo-Norwegian Fisheries (U.K. v. Nor.), 1951 I.C.J. 116, 127 (Mar. 29, 1950) (emphasis added).

33. *Id.* at 127.

34. See also comments made by Professor William Burke in reference to Canada's claim that its arctic waters should be considered to be internal waters:

> If it was reasonable for Norway to use a straight baseline system for its coast above the Arctic circle, where the islands fringe a coast that is sometimes deeply indented, must if follow that it is unreasonable for Canada to use such a system just because the islands do not fringe the coast but nonetheless abut that coast in great profusion?

William Burke, *The Law of the Sea: Customary Norms and Convention Rules—Remarks*, 1987 AM. SOC'Y INT'L L. PROC. 82.

35. Geneva Convention on the Territorial Sea and the Contiguous Zone art. 7, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205.

36. *See* GAYL S. WESTERMAN, THE JURIDICAL BAY 112-13 (1987).

37. *Id.* at 113.

tion."[38] The second sentence in paragraph three of Article 10 uses the term "mouth" in much the same way that paragraph four uses the term "natural entrance point,"[39] indicating that the presence of islands along the front of a bay is not relevant to the application of the semi-circle test, used to determine whether a body of water has sufficient indentation to qualify as a bay.

But this terminology also supports the idea that the twenty-four nautical-mile length across a "natural entrance point" can utilize islands along the front of the bay. The 1955 Commentary of the International Law Commission confirms this point. It states that because the presence of islands along the front of a bay links the indentation more closely with the territory, an indentation without islands at its entrance would not fulfill the necessary conditions recognized for a bay.[40] Professor Westerman has explained that this language provides "important indication of an intent to create a special regime for multi-mouthed bays."[41]

Westerman has also explained that the presence of fronting islands serves to give Biscayne Bay (opposite and south of Miami) "its status as internal waters," and that Long Island and Block Island serve to create "a juridical bay comprised of Long Island Sound and portions of Block Island Sound."[42] "One may scarcely ignore a geographical feature which has been

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38. *Id.*

39. *Id.* at 123-24. Professor Westerman has confirmed that the International Law Commission intended for the terms "mouth" and "natural entrance point" to be used interchangeably. *Id.*

40. *Id.* at 123 (citing *Report of the International Law Commission to the General Assembly*, [1955] 2 Y.B. Int'l L. Comm'n 37, U.N. Doc. A/2934).

41. *Id.* at 124. An effort by the United Kingdom to add language to the 1956 Commentary of the International Law Commission to say that, "[n]evertheless, islands at the mouth of a bay cannot be considered as 'closing' the bay if the ordinary sea route passes between them and the coast," was rejected by a vote of twenty-eight to eighteen with twenty-two abstentions. *Id.* at 125 (citing *Report of the International Law Commission to the General Assembly*, [1956] 2 Y.B. Int'l L. Comm'n 269, U.N. Doc. A/3159). Countries apparently rejected this proposal because indentations with islands across their entrance "do not tend to enclose major navigational routes." *Id.* at 126.

42. *Id.* at 126 n.121 (citing United States v. Maine, 469 U.S. 504 (1985)); *see also id.* at 148-49 (quoting Mahler v. Norwich & N.Y. Transp. Co., 35 N.Y. 352, 355 (1866)); *id.* at 149 (quoting United States v. Grush, 5 Mason 290, 301 (1829)). These cases "illustrate the complete lack of reluctance on the part of early decision makers to recognize island formations as natural 'headlands' of an indentation." *Id.* at 150. Other examples of bays defined by outlying islands offered by Professor Westerman include Raritan Bay in New Jersey, Buzzards Bay in Massachusetts, and Galveston Bay in Texas. *Id.* at 150-51. As Professor Westerman explains the argument presented by the United States that islands cannot in themselves form a bay was rejected in *United States v. Louisiana*. *Id.* at 156-57

expressly given such profound juridical significance."[43] She goes on to emphasize that:

> The presence of islands which create multiple entrances to an indentation triggers a certain relaxation in the geographical and mathematical requirements of paragraph two [of Article 10 of the Law of the Sea Convention], even to the extent that an indentation which without such islands would fail to meet the 'necessary conditions' is nonetheless to be recognized as a juridical bay.[44]

For these reasons, "when islands form separate mouths or entrances to an indentation, the natural entrance points no longer lie solely on the mainland but at the land terminus of each entrance, however numerous these entrances may be due to the presence of the islands."[45] An attempt during the 1955 debates of the International Law Commission to impose a maximum of twenty-five nautical miles on the "*sum total* of the various closing lines drawn connecting the islands and the mainland"[46] received "no support whatever."[47]

B. The Bay of Fundy Can Also Be Considered a "Historic Bay"

For decades, the Canadian Government has claimed the waters of the Bay of Fundy and its adjacent waters as "historic waters,"[48] and therefore as "internal waters." In Canada's Oceans Act, this claim is reaffirmed in general terms: "In respect of any area not referred to in subsection (2), the baselines are the outer limits of any area, other than the territorial sea of

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(referencing 394 U.S. 11, 62 n.83 (1969)).

43. *Id.* at 127.

44. *Id.* at 131.

45. *Id.* at 132.

46. *Id.* at 135 (referring to an amendment proposed by Mr. Sandstrom).

47. *Id.* at 136.

48. Jonathan I. Charney, *Central East Asian Maritime Boundaries and the Law of the Sea*, 89 AM. J. INT'L L. 724, 737 (1995) ("Canada claims the Bay of Fundy adjacent to the Gulf of Maine as a historic bay."); Donald M. McRae, *Canada and the Delimitation of Maritime Boundaries, in* CANADIAN OCEANS POLICY: NATIONAL STRATEGIES AND THE NEW LAW OF THE SEA 145, 145 n.6 (Donald McRae & Gordon Munro eds.,1989) (explaining that Canada claims the historic waters regime applies to the Gulf of St. Lawrence, the Bay of Fundy, Hecate Strait, and Queen Charlotte Sound).

Claims to "historic bays" and "historic waters" must be based on (1) the exercise of authority over the area, (2) the continuity over time of this exercise of authority, and (3) the attitude of foreign states to the claim. *Juridical Regime of Historic Waters, Including Historic Bays*, [1962] 2 Y.B. Int'l L. Comm'n 1, 19, U.N. Doc. A/CN/4/143.

Canada, over which Canada has a historic or other title of sovereignty."[49] Ships of other nations have no rights of passage through internal waters.[50]

Canada has repeatedly put forward the position that the waters of the Bay of Fundy are its "internal waters," and other countries appear to respect that claim. In 1962, for instance, after Soviet fishing vessels entered the bay, Canada told the ambassador of the Soviet Union that the waters in the Bay of Fundy were Canadian national waters, "and it would appear that the U.S.S.R. has now agreed to respect" the Canadian position.[51] Some commentators have accepted the proposition that the Bay

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49. Canada Oceans Act, 1996 S.C., ch. 31, sec. 5 (Can.). Canada has published its claims of straight baselines for a number of its coastal areas, including coastal areas in Labrador, southeast and east Newfoundland, Nova Scotia, Vancouver Island, Queen Charlotte Islands, but it has not yet done so for the waters of the Bay of Fundy and of the Passamaquoddy Bay region. *See id.*; Territorial Sea Geographical Coordinates Order (Oceans Act), 1997 C.R.C., ch. 1550.

When explaining the Canada Oceans Act during parliamentary debates, Minister of Fisheries and Oceans Brian Tobin explained that the "legislation incorporates all relevant existing law that Canada has, of course covering our full rights and jurisdiction over Internal Waters, our fishing zones off the Atlantic, Pacific and Arctic coasts, including the Gulf of St. Lawrence, the Bay of Fundy and Queen Charlotte Sound, Hecate Strait and Dixon Entrance, and our rights with respect to the Continental Shelf." Brian Tobin, *Notes for an Address: The Canada Oceans Act* (Sept. 26, 1995).

50. *See, e.g., Message from the President of the United States and Commentary Accompanying the United Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of the Part XI Upon Their Transmittal to the United States Senate for Its Advice and Consent*, 7 GEO. INT'L ENVTL. L. REV. 77, 100-01 (1994) ("Subject to ancient customs regarding the entry of ships in danger or distress (*force majeure*) and the exception noted below, the Convention does not limit the right of the coastal State to restrict entry into or transit through its internal waters, port entry, imports or immigration."). The exception stated is in Article 8(2) of the 1982 United Nations Law of the Sea Convention, which states: "Where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such, a right of innocent passage as provided in this Convention shall exist in those waters." Law of the Sea Convention, *supra* note 11, art. 8(2). This provision would not apply to the waters of the Bay of Fundy and Head Harbor Passage, because Canada has long considered these waters to be "internal" and did issue regulations in 1982 governing shipments through Head Harbor Passage. *See* Canada Shipping Act, Regulations Limiting the Quantity of Oil That May Be Carried on Board Oil Tankers in the Waters Within Head Harbour Passage, New Brunswick (Shipping Act), SOR/1982-244.

51. La Forest, *supra* note 26, at 150 (describing the many instances in the nineteenth century when the Canadian claim to control of the waters of the Bay of Fundy was articulated (by Great Britain on behalf of Canada) and was respected by other countries).

of Fundy is a "historic bay" without question,[52] and the United States has not formally objected to this position in recent years.[53]

In 1856, when Great Britain exercised sovereignty over Canada, the status of the Bay of Fundy was addressed by Umpire Bates in *The Washington* arbitral award, a decision rendered pursuant to the Anglo-American Claims Convention of 1853.[54] His conclusion was that the Bay of Fundy could not be viewed as an exclusively British bay, and therefore U.S. ships were allowed to fish in the waters of the bay outside the territorial sea (which was then three nautical miles).[55] Nevertheless, this decision is not applicable to the present controversy, both because the law has changed in important respects, and because the decision was based on erroneous assumptions. In 1856, the territorial sea extended only three nautical miles from the coasts of Canada and the United States, whereas now it extends to twelve nautical miles. This change has resulted in the entrance to the Bay of Fundy being completely covered by Canadian territorial waters. In addition, Bates' decision rested, in part, on the view that "[o]ne of the headlands of the Bay of Fundy is in the United States."

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52. *See, e.g.*, JAMES C. F. WANG, HANDBOOK ON OCEAN POLITICS & LAW 9 (1992) (referring to the Bay of Fundy as an example of a "historic bay"); DONAT PHARAND, CANADA'S ARCTIC WATERS IN INTERNATIONAL LAW 111 (1988) (including the Bay of Fundy in the list of Canadian bodies of water that "are or may be . . . considered" to be internal waters "on the basis of geography or history, or both").

53. The Bay of Fundy is not found on the list of historic waters claims that the United States has opposed. J. ASHLEY ROACH & ROBERT W. SMITH, UNITED STATES RESPONSES TO EXCESSIVE MARITIME CLAIMS 33-34 (2d ed. 1996).

54. This decision is reproduced in 4 JOHN BASSETT MOORE, HISTORY AND DIGEST OF INTERNATIONAL ARBITRATIONS TO WHICH THE UNITED STATES HAS BEEN A PARTY 4344 (1898).

55. Umpire Bates wrote:

> The Bay of Fundy is from 65 to 75 miles wide and 130 to 140 miles long. It has several bays on its coasts. Thus the word bay, as applied to this great body of water, has the same meaning as that applied to the Bay of Biscay, the Bay of Bengal, over which no nation can have right to assume sovereignty. One of the large headlands of the Bay of Fundy is in the United States, and ships bound to Passamaquoddy must sail through a large space of it. The islands of Grand Menan (British) and Little Menan (American) are situated nearly on a line from headland to headland. These islands, as represented in all geographies, are situated in the Atlantic Ocean. The conclusion is, therefore, in my mind irresistible that the Bay of Fundy is not a British bay, nor a bay within the meaning of the word as used in the treaties of 1783 and 1818.

The Washington Arbitration Agreement, U.S.-U.K., at 184, Feb. 8, 1853, S. EXEC. DOC. 103 (1853), *quoted in*, MOORE, *supra* note 54, at 4344; Mohamed 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, 537 (1982).

Nevertheless, as explained above, it seems more logical to draw the closing lines across the bay from the southernmost point of the New Brunswick coast (at St. Andrews) to Campobello, Grand Manan Island, White Head Island, Gannet Rock, and then to Brier Island in Nova Scotia. Bates described the Bay of Fundy as being from sixty-five to seventy-five miles wide, but the distance between the small islands southeast of Grand Manan Island and the islands extending southwest from Digby, Nova Scotia is less than the twenty-four nautical miles required to characterize the Bay of Fundy as a proper juridical bay under Article 10(4) of the Law of the Sea Convention. Therefore, this 1856 ruling does not appear to be based on sound principles of international law in light of the evolution of the principles governing the law of the sea,[56] and Canada has continued to view the waters of the Fundy region as internal waters.

The bay that seems most comparable to the Bay of Fundy is the Bohai Bay on China's northeast coast, near Korea. Bohai is a very large bay, with an entrance of forty-five nautical miles across from the coastal headlands, but (like the Bay of Fundy) with a chain of small islands extending across its opening. The largest distance between the islands that extend across the Bohai is 22.5 nautical miles.[57] China has long claimed the waters in Bohai Bay as internal waters, and no other country seems to have formally objected to this claim.[58] One prominent Chinese scholar has explained that China has justified its claim to Bohai Bay as internal waters:

> by saying that Bohai Bay was completely inside the strait baseline of China's territorial sea; the breadth of the largest entrance along the closing line of the bay was 22.5 nautical miles, less than 24 nautical miles; and for thousands of years it has been constantly under the actual jurisdiction of China.[59]

Another comparable bay is Canada's Hudson Bay. This enormous bay[60] connects with the Atlantic Ocean through the Hudson Strait, which

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56. La Forest characterized the ruling by Umpire Bates in *The Washington* arbitration as "wrong," and noted that Bates "was not a lawyer." La Forest, *supra* note 26, at 162.

57. Zou Keyuan, *Maritime Boundary Delimitation in the Gulf of Tonkin*, 30 OCEAN DEV. & INT'L LAW 235, 241 (1999).

58. Bohai Bay is not found in the list of historic waters claims that the United States has opposed. ROACH & SMITH, *supra* note 53, at 33.

59. Zou Keyuan, *supra* note 57, at 241.

60. Hudson Bay is about 900 miles in length, with a maximum width of 520 miles. James Michael Zimmerman, *The Doctrine of Historic Bays: Applying an Anachronism in the Alabama and Mississippi Boundary Case*, 23 SAN DIEGO L. REV. 763, 773 n.64 (1986). It embraces 580,000 square miles. YAHUDA Z. BLUM, HISTORIC TITLES IN INTERNATIONAL

is said by one scholar to have an entrance of fifty miles,[61] and also has many large and small islands across it. Canada has long claimed Hudson Bay as internal waters "[o]n the basis of occupation, and acquiescence by other states in that occupation,"[62] and this claim has been accepted as valid by many commentators.[63] Canada drew a baseline across the Hudson Strait as early as 1937.[64]

Canada may also be able to take the position that it is entitled to draw straight baselines, under Article 7 of the Law of the Sea Convention, connecting Brier Island in Nova Scotia to Gannet Rock, and further to Grand Manan Island, Campobello Island, Deer Island in Passamaquoddy Bay, and finally St. Andrews on the New Brunswick mainland. Such a configuration would completely enclose the Bay of Fundy and Passamaquoddy Bay, and establish them both clearly as internal waters. Paragraph 1 of Article 7 allows straight baselines to be drawn under the following circumstances:

> In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.[65]

LAW 266 (1965).

61. *Id.*

62. V. Kenneth Johnston, *Canada's Title to Hudson Bay and Hudson Strait*, 1934 BRIT. Y.B. INT'L L. 1, 20. Canada adopted legislation in 1906 requiring whalers to obtain licenses when hunting whales in Hudson Bay. PHARAND, *supra* note 52, at 169; Act to Amend the Fisheries Act, 1906, 6 Edw. VII, ch. 13 (Can.). In 1907, Sir Richard Cartwright stated in the Canadian Senate that "Canada has a very reasonably good ground to regard Hudson Bay as a *mare clausum* and as belonging to it, that everything there may be considered as pertaining thereto." *Id.* at 10 (quoting Canadian Senate Debates, Feb. 20, 1907, at 266). In December 1973, an official of the Canadian Department of External Affairs stated that Canada claimed Hudson Bay and Hudson Strait as historic internal waters, quoting from a statement made to the House of Commons in 1957 by the Minister of Northern Affairs that "the waters of Hudson Bay are Canadian waters by historic title" and that Canada regarded "as inland waters all the waters west of a line drawn across the entrance to Hudson Strait from Button Island to Hatton Head on Resolution Island." *Id.* at 112 (quoting Edward G. Lee, *Canadian Practice in International Law during 1973 as Reflected Mainly in Public Correspondence and Statements of the Department of External Affairs*, 12 CAN. Y.B. INT'L L. 272, 279 (1974)).

63. *See, e.g.*, WANG, *supra* note 52, at 9. The United States has long opposed Canada's claim that Hudson Bay is internal Canadian waters. ROACH & SMITH, *supra* note 53, at 33.

64. PHARAND, *supra* note 52, at 129 n.92.

65. Law of the Sea Convention, *supra* note 11, art. 7(1).

Certainly the Bay of Fundy and the Passamaquoddy Bay constitute deep indentations, and the indentations continue from Fundy into the Chignecto Bay and the Minas Basin and Cobequid Bay. The depth of the indentations and the length of the individual baselines meet the criteria proposed by U.S. officials, who were writing in the 1980s to limit baseline claims,[66] allowing baselines of up to forty-five nautical miles.[67] Under this approach, it would not be necessary to establish separately the status of the Bay of Fundy as either a juridical or historical bay.

C. What Is the Status of the Waters of Passamaquoddy Bay?

Passamaquoddy Bay has an entrance of about thirteen nautical miles, even without considering the islands across its entrance, and thus it would certainly be viewed as a juridical bay if it were solely within a single country.[68] As such, its waters would be viewed as internal waters.[69] Normally, bays that are divided between two or more countries do not qualify as juridical bays under international law,[70] but a number of exceptions to that rule have been recognized. The International Court of Justice characterized the Gulf of Fonseca as a juridical bay, even though it is bordered by Nicaragua, Honduras, and El Salvador.[71] Other examples include the Sea of Azov, which is now viewed as internal waters jointly shared by Russia and Ukraine, and the Palk Strait, which is viewed as internal waters shared by India and Sri Lanka.[72] At least one author has concluded that it would be logical to view Passamaquoddy Bay as internal waters shared by the United

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66. *See, e.g.*, J. Peter A. Bernhardt, *Straightjacketing Straight Baselines*, *in* INTERNATIONAL NAVIGATION: ROCKS AND SHOALS AHEAD? 85 (Jon M. Van Dyke, Lewis M. Alexander & Joseph R. Morgan eds., 1988).

67. *Id.* at 89. This proposal also suggested a requirement that "at least 50% of the coastline be masked by fringing islands from the vantage point of the mariner at sea," but this part of the proposal has not met with international acceptance and certainly is not supported by state practice. *Id.* at 92.

68. Ewen, *supra* note 15, at 170.

69. *Id.*

70. Law of the Sea Convention, *supra* note 11, art. 10(1) ("This article relates only to bays the coasts of which belong to a single State."); *see also* L. OPPENHEIM, INTERNATIONAL LAW 508 (H. Lauterpacht ed., 8th ed.1955) ("[A]ll gulfs and bays enclosed by the land of more than one littoral State, however narrow their entrance may be, are non-territorial.").

71. Land, Island and Maritime Frontier Dispute (El Sal. v. Hon.; Nicar. intervening) 1992 I.C.J. 351, (Sept. 11, 1992).

72. Agreement between Sri Lanka and India on the Boundary in Historic Waters between the Two Countries and Related Matters, Sri Lanka-India, June 26 & 28, 1974, *available at* http://www.un.org/Dept/los/legislationandtreaties/PDFFILES/Treaties/LKA-IND1976MB.pdf.

States and Canada.[73] Even if this view were not accepted, Canada can draw a baseline connecting Campobello Island to Deer Island and then Deer Island to St. Andrews on the New Brunswick mainland, thus making most of Passamaquoddy Bay internal waters of Canada.

D. What Is the Status of the Head Harbor Passage Under International Law?

Head Harbor Passage is certainly a "strait" as that term is understood by geographers, but it is not a strait governed by the transit passage regime created by the Law of the Sea Convention. That regime applies only to "straits which are used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone," and hence it does not by its terms apply to Head Harbor Passage, which connects the internal waters of Canada to the territorial sea (or internal waters) of the United States.

Some commentators have said that Head Harbor Passage is governed by Article 45(1)(b) of the Law of the Sea Convention, which addresses passage between "a part of the high seas or an exclusive economic zone and the territorial sea of a foreign State," and states that the regime of nonsuspendable innocent passage applies to such waterways.[74] These straits are sometimes called "dead-end straits." Among the other waterways usually thought to be governed by Article 45(1)(b) are the Strait of Tiran (leading into the Gulf of Aqaba and the Israeli port of Elat); the Bahrain-Saudi Arabia Passage; the Strait of Georgia (leading through Canadian waters into the Seattle area); and the Gulf of Honduras (leading to Guatemala).[75]

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73. Ewen, *supra* note 15, at 171.

74. *Message from the President of the United States and Commentary Accompanying the United Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of the Part XI Upon Their Transmittal to the United States Senate for its Advice and Consent*, 7 GEO. INT'L ENVTL. L. REV. 77, 106 (1994) ("These so-called "dead-end" straits include Head Harbor Passage leading through Canadian territorial sea to the United States' Passamaquoddy Bay."); Michel Bourbonniere & Louis Haeck, *Military Aircraft and International Law: Chicago Opus 3*, 66 J. AIR L. & COM. 885, 961 n.285 (2001).

75. Lois E. Fielding, *Maritime Interception: Centerpiece of Economic Sanctions in the New World Order*, 53 LA. L. REV. 1191, 1226 n.194 (1993). This regime would also govern travel through the Gulf of Finland into St. Petersburg if Finland and Estonia were to expand their territorial seas from three to twelve nautical miles, and through the Aegean Sea into the Turkish port of Izmir if Greece were to expand its territorial sea claim from six to twelve nautical miles in that region. *See, e.g.*, George P. Politakis, *The Aegean Dispute in the 1990s: Naval Aspects of the New Law of the Sea Convention*, *in* GREECE AND THE LAW OF THE SEA 291, 295, 302 (Theodore C. Kariotis ed., 1997); *see also* George P. Politakis, *The*

If, however, the waters in Head Harbor Passage are the internal waters of Canada, as explained above, then Article 45(1)(b) would not apply to this strait, and it would be subject to the complete sovereign control of Canada.

IV. CAN COASTAL COUNTRIES PROHIBIT OR REGULATE THE PASSAGE OF SHIPS IN COASTAL WATERS BASED ON THE NATURE OF THE CARGO OR THE TYPE OF SHIP?[76]

Article 58 of the Law of the Sea Convention states that "all States" enjoy the high-seas freedoms of navigation and overflight in the exclusive economic zones (EEZs) of other states, but also states that these freedoms should be exercised with "due regard" to the right of the coastal state to exploit the resources of the EEZ and the responsibilities of the coastal state to protect the marine environment, which are spelled out in Article 56.[77] Rights of navigation are qualified "subject to the relevant provisions of this Convention,"[78] and maritime states are directed to "have due regard to the rights and duties of the coastal State" and to "comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part."[79] Coastal states have been active in exploiting these resources and seeking a reduction in pollution,[80] while also placing limitations upon navigational rights when necessary to protect their resources and the marine environment.[81]

Aegean Agenda: Greek National Interests and the New Law of the Sea Convention, 10 INT'L J. MARINE & COASTAL L. 497 (1995).

76. *See generally* Jon M. Van Dyke, *The Disappearing Right to Navigational Freedom in the Exclusive Economic Zone*, 29 MARINE POL'Y 107, 107-21 (2005); Duncan E.J. Currie & Jon M. Van Dyke, *Recent Developments in the International Law Governing Shipments of Nuclear Materials and Wastes and their Implications for SIDS*, 14 RECIEL 117 (2005) [hereinafter Van Dyke, *The Disappearing Right*]; Jon M. Van Dyke, *Balancing Navigational Freedom with Environmental and Security Concerns*, 14 COLO. J. INT'L ENVTL. L. & POL'Y 2003 YEARBOOK 19 (2004).

77. Law of the Sea Convention, *supra* note 11, art. 56; *see* DAVID JOSEPH ATTARD, THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL LAW 43 (1987).

78. Law of the Sea Convention, *supra* note 11, art. 58(1).

79. *Id.* art. 58(3).

80. *See* ATTARD, *supra* note 77, at 94.

81. Donald R. Rothwell, *Navigational Rights and Freedoms in the Asia Pacific Following Entry into Force of the Law of the Sea Convention*, 35 VA. J. INT'L L. 587, 619 (1995). One of the most potent provisions in favor of coastal state authority is Article 220(3)(6) of the Law of the Sea Convention, which authorizes coastal states to obtain the identification of and to conduct a search of commercial cargo vessels in its EEZ that are suspected of violating the pollution regulations of the coastal state. Law of the Sea Convention, *supra* note 11, art. 220(3)(6). Under Article 220(3)(6), if "clear grounds" exist

When future histories of navigational rights are written, the disastrous breakup of the oil tanker *Prestige* off the coast of Spain in November 2002 will certainly be identified as one of the defining moments that changed perceptions and the governing principles of international law. When this aged single-hulled tanker started foundering and leaking its oil cargo, Spain refused to permit the crippled vessel to come into a Spanish port for "safe haven."[82] After the tanker was towed into the open ocean, it broke apart causing a dramatic and destructive spill of its cargo.[83] Huge amounts of oil washed up along the beautiful and resource-rich coasts of Spain, Portugal, and France. Subsequently, France and Spain issued a decree that stated:

A. All oil tankers traveling through these two countries' EEZs will have to provide advance notice to the coastal countries about their cargo, destination, flag, and operators.

B. All single-hulled tankers more than fifteen years old traveling through the EEZs of Spain and France will be subject to spot inspections by coastal maritime authorities while in the adjacent EEZs and will be expelled from the EEZs if they are determined, after inspection, to be not seaworthy.[84]

Shortly after the Spanish-French decree, Portugal announced that it would take the same position on this issue.[85] In addition, Morocco announced that single-hulled oil tankers more than fifteen years old carrying heavy fuel, tar, asphaltic bitumen or heavy crude oil would be subject to the requirement that they provide prior notification and adhere to strict safety regulations.[86]

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for believing that a vessel is violating international pollution standards, a coastal state may: demand information from; physically inspect (if a "substantial discharge" causes or threatens "significant pollution of the marine environment"); and detain the vessel (if the discharge causes or threatens damage to the coastline or resources). *Id.*

82. Van Dyke, *The Disappearing Right*, *supra* note 77, at 109.

83. *Id.*

84. *See, e.g.*, Emma Daly, *After Oil Spill, Spain and France Impose Strict Tanker Inspections*, N.Y. TIMES, Nov. 27, 2002, at A5. Earlier, France had banned vessels over 1600 tons from coming within seven nautical miles of the coast around Cherbourg and Brest, to protect the fragile coastal environment. Robert Nadelson, *After MOX: The Contemporary Shipment of Radioactive Substances in the Law of the Sea*, 15 INT'L J. MARINE & COASTAL L..193, 224 n.189 (2000) (citing Joint Prefectorial Decree 326 Cherbourg/18/81 Brest of May 13, 1981).

85. Interview with Kristina Gjerde, High Seas Policy Advisor, World Conservation Union, in Paris, Fr. (Nov. 12, 2003).

86. Van Dyke, *The Disappearing Right*, *supra* note 76, at 110.

In spring 2003, the European Union banned large, single-hulled tankers carrying heavy grade oil from coming into any European ports.[87] Similarly, on April 3, 2003, the French National Assembly unanimously adopted a new law asserting the right to intercept ships that release polluting ballast waters as far as ninety miles from its Mediterranean coast, and also imposed stricter controls on transient oil tankers.[88] Captains of vessels violating these new French laws can be sentenced to up to four years in prison and fined up to $600,000.[89] During this time, Spain, France, and Portugal were joined by Belgium and the United Kingdom in submitting a petition to the International Maritime Organization (IMO) to declare virtually their entire EEZs to be "particularly sensitive sea areas," which would make them completely off-limits for single-hulled oil tankers and other cargo vessels transporting dangerous cargoes.[90] Acting upon the recommendation of its Marine Environmental Protection Committee (MEPC), the IMO Council granted this request in October 2004,[91] and then established the West European Tanker Reporting System (WETREP), which had the effect of superceding the initiative of the European states prohibiting single-hulled tankers altogether.[92] This sequence of events, initiated by five maritime countries to protect their own coastal resources, is a significant example of the "state practice" of restricting navigational freedom in order to protect the resources of the EEZ.

Another significant example is the United States' proposal, which was approved by the IMO in December 1998, established a mandatory ship reporting system off the northeast and southeast coasts of the United States in order to protect the northern right whale from being hit by ships.[93] This whale species was hunted almost to extinction because of its oil, and is now thought to be the rarest whale species in the world.[94] This latest area to require ship reporting joined nine others that have been establishing by the

87. Marlise Simons, *France Clamps Down on Shipping Pollution,* N.Y. TIMES, Apr. 7, 2003, at A8.

88. *Id.*

89. *Id.*

90. Interview with Kristina Gjerde, *supra* note 85.

91. Int'l Maritime Org. [IMO], *Summary of Decisions*, at 16, IMO Doc. C93/D (Nov.22, 2004).

92. Int'l Maritime Org. [IMO], *Mandatory Shipping Reporting Systems*, IMO Res. MSC.190(79) (Dec. 6, 2004). WETREP requires oil tankers of more than 600 tons of deadweight to provide regular reports on their routing and cargo to adjacent coastal states. *Id.*

93. Rachel Cantry, *The Coast Guard and Environmental Protection,* 52 NAVAL WAR COLLEGE REV. 77 (1999).

94. *Id.* at 78.

IMO to protect fragile environmental areas. In May 1996, the IMO approved a reporting regime for the Torres Strait region between Australia and Papua New Guinea and the inner route of Australia's Great Barrier Reef, as well as the area adjacent to France's Ushant islet.[95] Six months later, the IMO gave this status to Denmark's Great Belt Traffic Area, the Strait of Gibraltar, and the area off Finisterre on the Spanish coast.[96] On May 29, 1998, the IMO similarly required that notice be provided by ships passing through the Strait of Bonifacio between Corsica, France and Sardinia, Italy and also through the Straits of Malacca and Singapore.[97] On December 3, 1998, the IMO imposed this requirement on ships passing through the Strait of Dover/Pas de Calais as well as those going through the northeastern and southeastern United States, as described above, to protect the remaining right whales.[98]

The U.S. Department of Defense vigorously opposed the designation of the eastern coastal areas of the United States as mandatory ship reporting areas. The Department "'was concerned that although public ships—notably warships—were exempt under the NOAA proposal, to require civilian vessels to report would make it possible to determine (by elimination) which ships were military,'" and thereby "'"would erode navigational freedoms globally and endanger American lives."'"[99] Nevertheless, the U.S. Coast Guard supported this initiative, because of its mandate to enforce U.S. environmental laws, even though it recognized that this move might require the United States to support similar initiatives by other countries, and might lead to the perception that "international law increasingly recognizes environmental protection as a justifiable reason to curtail freedom of navigation."[100]

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95. Int'l Maritime Org. [IMO], *Mandatory Shipping Reporting Systems*, IMO Res. MSC.52(66) (May 30, 1996). Ushant (Ouessant in French), is the most westerly of the islands off the coast of France, about fourteen miles from the coast of Finistre. *Id.* Ushant is about 3850 acres in extent and almost entirely granitic, with steep and rugged coasts accessible only at a few points, and rendered more dangerous by the frequency of fogs. *Id.* It has a small population of pilots, fishers, and farmers. *Id.*

96. Int'l Maritime Org. [IMO], *Mandatory Shipping Reporting Systems*, IMO Res. MSC.63(61) (Dec. 3, 1996).

97. Int'l Maritime Org. [IMO], *Mandatory Shipping Reporting Systems*, IMO Res. MSC.73(69) (May 19, 1998).

98. Int'l Maritime Org. [IMO], *Mandatory Shipping Reporting Systems*, IMO Res. MSC.85(70) (Dec. 7, 1998).

99. Cantry, *supra* note 93, at 82 (quoting Memorandum from Rear Admiral John Hutson, (Feb. 18. 1998)).

100. *Id.* at 85.

In 2006, Australia established a regime of compulsory pilotage for ships passing through the Torres Strait, between Australia and Papua New Guinea.[101] This strait is shallow and hazardous, and contains rich fishing grounds and fragile environmental resources. The IMO has recommended that countries comply with this requirement.[102] Another example of restrictions on navigation to protect fragile coastal areas is the establishment by the United States of the Northwestern Hawaiian Islands Marine National Monument in the waters around the small islands that extend 1400 miles northwest of the main Hawaiian Islands, and the establishment of "Areas to Be Avoided" by vessels of more than 1000 gross tons within 50 nautical miles of the islands and atolls in this monument.[103]

V. THE TRANSPORT OF ULTRAHAZARDOUS NUCLEAR MATERIALS[104]

Numerous states have declared that the shipments of ultrahazardous nuclear cargoes should not transit through their EEZs. For instance, in 1992, South Africa and Portugal explicitly requested that Japan's shipment of reprocessed nuclear wastes stay out of their EEZs,[105] and in response to an inquiry from Australia, Japan stated that "in principle" the ship would stay outside the 200-nautical-mile zone of all nations.[106] In 1995, Brazil,

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101. Sam Bateman, *Freedom of the Seas in Historical Perspective* 7 (presented to Conference on Freedom of the Seas: A Contemporary Outlook, sponsored by the National Maritime Foundation, New Delhi, India, Feb. 13-14, 2007) (citing Australian Marine Notice 8/2006 and associated Marine Orders Part 54)(on file with author).

102. *Id.* (citing Int'l Maritime Org. [IMO], *Designation of the Torres Strait as an Extension of the Great Barrier Reef Particularly Sensitive Area*, IMO Res. MEPC.133(53) (July 22, 2005).

103. *See* INT'L MARITIME ORG., SHIPS' ROUTEING (8th ed. 2003). On April 3, 2007, the United States asked the International Maritime Organization to expand the "Areas to Be Avoided" near the Northwestern Hawaiian Islands to protect additional areas where "navigation is particularly hazardous." SUB-COMM. ON SAFETY OF NAVIGATION, INT'L MARITIME ORG., ROUTING OF SHIPS, SHIP REPORTING, AND RELATED MATTERS (2007), *available at* http://www.imo.org/.

104. *See generally* Jon M. Van Dyke, *The Legal Regime Governing Sea Transport of Ultrahazardous Radioactive Materials*, 33 OCEAN DEV. & INT'L L. 77 (2002); Duncan E.J. Currie & Jon M. Van Dyke, *The Shipment of Ultrahazardous Nuclear Materials in International Law*, 8 RECIEL 113 (1999); Jon M. Van Dyke, *Applying the Precautionary Principle to Ocean Shipments of Radioactive Materials*, 28 OCEAN DEV. & INT'L L. 379 (1996) [hereinafter Van Dyke, *Precautionary Principle*]; Jon M. Van Dyke, *Sea Shipment of Japanese Plutonium Under International Law*, 24 OCEAN DEV. & INT'L L. 399 (1993).

105. *See generally* Van Dyke, *Precautionary Principle*, *supra* note 104, at 386.

106. Statement of Toichi Sakata, Director of the Japanese Science and Technology Agency's Nuclear Fuel Division, to participants in the Asia-Pacific Forum on Sea Shipments of Japanese Plutonium, Tokyo (Oct. 6, 1992).

Argentina, Chile, South Africa, Nauru, and Kiribati all expressly banned the British nuclear cargo ship *Pacific Pintail* from their EEZs and Chile sent its ships and aircraft to force the ship out of its EEZ.[107] In 1999, New Zealand issued a strong statement protesting these shipments, stating that they should not be permitted through New Zealand's EEZ because of the "'"'precautionary principle' enshrined in the Rio Declaration."'"[108] Several states have filed declarations under Article 310 of the Law of the Sea Convention explaining that Articles 22 and 23 of the Convention presume the existence of international conventions regulating transport of nuclear materials and that, until such treaties are developed, coastal states can require prior notification, or even prior authorization, for such shipments adjacent to their coasts.[109] Even Japan has stated that vessels carrying nuclear weapons do not have the right to transit through Japan's territorial sea.[110]

In October 2002, Chile modified its "Law for Nuclear Safety" to require prior authorization for any transport of "nuclear substances" and "radioactive materials" through Chile's EEZ.[111] Such authorization will be granted only if the transporter establishes that the shipment will "keep[] the environment free of contamination," and only after information has been provided regarding the date and route of the shipment, the "characteristics

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107. *See* Van Dyke, *Precautionary Principle, supra* note 104, at 386-87.

108. Letter from Don McKinnon, N.Z. Minister of Foreign Affairs and Trade, to Michael Szabo (July 7, 1999) (on file with author).

109. For instance, Malaysia cited the inherent danger entailed in the passage of nuclear-powered vessels or vessels carrying nuclear material or other material of a similar nature and stated that the Malaysian Government, "with all of the above in mind, requires the aforesaid vessels to obtain prior authorization of passage before entering the territorial sea of Malaysia until such time as the international agreements referred to in article 23 are concluded and Malaysia becomes a party thereto. Under all circumstances, the flag State of such vessels shall assume all responsibility for any loss or damage resulting from the passage of such vessels within the territorial sea of Malaysia." Oceans and the Law of the Sea: Division for Ocean Affairs and Law of the Sea, http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Malaysia%20Upon%20ratification (last visited Sept. 21, 2008).

110. Charney, *supra* note 48, at 743 (citing Shunji Yanai & Kuniaki Asomura, Note, *Japan and the Emerging Order of the Sea—Two Maritime Laws of Japan*, 21 JAPANESE ANN. INT'L L. 48, 62 (1977); Tsuneo Akaha, *Internalizing International Law: Japan and the Regime of Navigation Under the UN Convention on the Law of the Sea*, 20 OCEAN DEV. & INT'L L. 113 (1989); CHI YOUNG PAK, THE KOREAN STRAITS 89 (1988); Chiyuki Misukami, *The Relation Between International Treaties and National Regulation in East Asia and International Cooperation in Marine Pollution: Japan*, *in* INTERNATIONAL IMPLICATIONS OF EXTENDED MARITIME JURISDICTION IN THE PACIFIC 90 (John P. Craven, Jan Schneider & Carol Stimson eds., 1989).

111. Nuclear Safety Law No. 18.302, art. 4 (1984), *amended by* Law 19.825 (2002) (Chile).

of the load," and the "safety and contingency measures" that are being utilized.[112]

A. The San Onofre Nuclear Reactor

Another defining moment in the tension between navigational freedom and the right of coastal states to restrict the movement of ships through the waters adjacent to their coasts based on the nature of the ship and its cargo was the United States' announcement on February 3, 2004 that it was abandoning its plan to ship the 770-ton, decommissioned nuclear reactor from the San Onofre nuclear plant in Southern California around Cape Horn at the southern tip of South America to South Carolina for burial.[113] This plan, which had previously been approved by the U.S. Department of Transportation despite conflicting views within the U.S. government, was to put the reactor on a barge that would make a ninety-day journey around South America. This journey would thus include the transiting of Drake's Passage at the continent's tip, which is one of the world's most dangerous nautical passages, as gale-force winds blow there 200 days each year.[114] Although logic would have favored burial in California or Hanford, Washington, or transporting the reactor across the United States by train, these options were rejected because of U.S. laws governing the disposal of nuclear wastes and because of liability concerns.

The U.S. State Department originally instructed Southern California Edison that it "should not apply for Chilean authorization for the passage because it was concerned that [Southern California Edison's] doing so would set an unfavorable precedent for future shipments."[115] Subsequently, however, the U.S. Department of Transportation indicated that it thought consultations with Chile would be logical because of the potential risks and the advantages of having emergency contingency plans.[116] The Department

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112. *Id.* art. 4(II).

113. *Edison Scuttles San Onofre Reactor Trip,* SAN DIEGO UNION-TRIB., Feb. 3, 2004, *available at* http://www.signonsandiego.com/news/northcounty/20040203-1311-nuclear.html.

114. *See, e.g.,* Heavy Seas Across Drake Passage, http://www.coolartic.com/gallery/scenic/weather/Antartic_weather3htm (last visited Sept. 9, 2008).

115. *Nuke Waste Move Plan Hits Snag: Dept. of Transportation Fears Diplomatic Furor,* http://www.cbsnews.com/stories/2003/11/05/politics/main582090.shtml?source=search_story (last visited Nov. 5, 2003).

116. *Id.* "'Although we recognize that advance notification of coastal states is not required, we consider it to be an important element in preparation for contingencies,' Robert A. McGuire, the [U.S. Department of Transportation] associate administrator for hazardous materials, wrote in an Oct. 17[, 2003] letter. 'It may be necessary to seek shelter in waters

of Transportation also urged Southern California Edison to develop more realistic salvage plans in the case of a sinking.[117]

These concerns seemed to resonate with the State Department because a month later, in late November, the State Department said that "a number of significant issues" needed to be resolved before the reactor could be shipped, and stated specifically that Southern California Edison should consider another route around South America, explain in detail its salvage contingency plans, and show it has adequate liability insurance.[118] However, the Department of Transportation finally issued a permit for the shipment on December 1, 2003.[119] Southern California Edison stated that "the ocean journey will be made in international shipping lanes hundreds of miles off the coasts of Central and South America. The journey around Cape Horn will have to be completed before the beginning of the region's winter storms, typically by April."[120] It was never clear whether the vessel was going to try to avoid passing through Chile's EEZ altogether by staying more than 200 nautical miles from the Chilean coast. A second international hurdle was presented by a January 2004 court decision in Argentina, which prohibited the passage of the reactor through Argentina's EEZ.[121] This decision issued by Argentine federal judge Jorge Pfleger cited the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal[122] as authorizing coastal countries to block such shipments.[123] After this decision, Argentine officials stated that if the shipment passed through Argentina's EEZ "the load will be intercepted by the military and escorted out of the nation's territorial waters."[124]

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of a coastal state.'" *Id.* McGuire's letter also noted that Southern California Edison had made no arrangements for emergency equipment, such as cranes, backup tugs or salvage vessels. *Id.*

117. *Id.* (quoting Letter from Robert McGuire, Assoc. Administrator for Hazardous Materials, the U.S. Dept. of Transp. (Oct. 17, 2003) ("Given that your transport is entirely over open ocean, your proposal to salvage only in water up to 300 feet appears insufficient.")).

118. Matthew T. Hall, *Reactor's Journey Will be Delayed; "Significant Issues" Remain Unresolved,* SAN DIEGO UNION-TRIB., Nov. 21, 2003, at B3.

119. H.G. Reza, *Edison Cleared to Ship San Onofre Reactor*, L.A. TIMES, Dec. 3, 2003, at B1.

120. *Id.*

121. Hector Tobar & Dan Weikel, *Argentina Limits Reactor Route,* L.A. TIMES, Jan. 16, 2004, at B1.

122. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 657 (1989).

123. For a discussion of the applicability of the Basel Convention to radioactive wastes, see Van Dyke, *Precautionary Principle, supra* note 104, at 383-85.

124. Tobar & Weikel, *supra* note 120, at B1.

This important decision would have set the stage for a significant international incident had the shipment taken place and transited within 200 nautical miles of Argentina's coast. The subsequent U.S. decision to abandon this shipment must therefore be viewed as a recognition that coastal countries have the authority to take action to protect their coastal populations and resources, even if such actions impose limits on navigation.

B. EEZ Group 21

Under the auspices of Japan's Ocean Policy Research Foundation, with funding from the Nippon Foundation, a group of fifteen experienced ocean law scholars and officials prepared *Guidelines for Navigation and Overflight in the Exclusive Economic Zone* in September 2005, after a series of meetings discussing these issues.[125] Among the Guidelines adopted by this group was the following: "A coastal State may, in accordance with international law, regulate navigation in its EEZ by ships carrying inherently dangerous or noxious substances in their cargo."[126] This important statement provides further evidence that customary international law allows countries to regulate the movement of ships in waters adjacent to their coasts based on the nature of the ship or its cargo.

VI. CONCLUSION

Canada's claim that the waters of the Bay of Fundy, which include those of Head Harbor Passage, are the internal waters of Canada is supported by the language and negotiating history of Article 10 of the Law of the Sea Convention. Canada's claim is also supported by the principles

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125. Mark J. Valencia & Kazumine Akimoto, *Guidelines for Navigation and Overflight in the Exclusive Economic Zone*, 30 MARINE POL'Y 704 (2006).

126. *Id.* at 708 (emphasis added). The members of EEZ Group 21 are Masahiro Akiyama, Chair, Ocean Policy Research Foundation, Japan; Rear Admiral (Ret.) Kazumine Akimoto, Senior Researcher, Ocean Policy Research Foundation; Sam Bateman, University of Wollongong, Australia; Hasjim Djalal, Indonesian Maritime Council; Alberto A. Encomienda, Secretary General, Maritime and Ocean Affairs Center, Department of Foreign Affairs, Philippines; Moritaka Hayashi, Waseda University, Japan; Ji Guoxing, Shanghai Jiao Tong University, China; Commander Kim Duk-ki, National Security Council, Republic of Korea; Pham Hao, Deputy Director General, Department of International Law and Treaties, Ministry of Foreign Affairs, Vietnam; Shigeki Sakamoto, Kobe University, Japan; Rear Admiral (Ret.) O.P. Sharma, College of Naval Warfare, Mumbai, India; Alexander S. Skaridov, Russian State Humanitarian University, St. Petersburg, Russia; Mark J. Valencia, Maritime Policy Analyst, Kaneohe, Hawaii, USA; Jon M. Van Dyke, University of Hawaii, USA; and Judge Alexander Yankov, International Tribunal for the Law of the Sea, Hamburg, Germany.