Navigating the Oceans: Old and New Challenges for the Law of the Sea for Straits Used for International Navigation

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INTRODUCTION

David Caron in his elegant exposé on the *Great Straits Debate* explains that:

> Straits simultaneously involve interests both near and far. And it is that fact that makes passage through straits a difficult object of negotiations. Although all nations have an interest in efficient shipping, it is particular nations—often far from the straits—that have interests in the unimpeded movement of naval vessels or that directly or through their nationals have interests in the unimpeded movement of commercial vessels. Simultaneously, it is the states with coasts on these straits that most directly face the risks and other costs of such vessel passage. Negotiating solutions to this 'near-far' clash of interests is inherently difficult.[1]

Straits are by definition narrow waterways linking seas and the ocean which often provide significant time-saving and cost-cutting navigational routes to commercial shipping. In turn, this navigationally advantageous position can give coastal States the power to exert control over passage of international shipping by imposing regulatory conditions or even by completely closing passage to foreign ships. The topic of straits has taken its place in the great discourses of international law stretching over a period of more than three centuries, dating back to Hugo Grotius in the seventeenth century and well into the twentieth

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1. David D. Caron, *The Great Straits Debate: The Conflict, Debate, and Compromise that Shaped the Straits Articles of the 1982 United Nations Convention on the Law of the Sea*, NAVIGATING STRAITS: CHALLENGES FOR INTERNATIONAL LAW 11, 11–32 (David D. Caron & Nilufer Oral eds., 2014).

century.[2] The question of the legal rights of passage for foreign ships through straits has held a prominent place in international law and the law of the sea, especially during the negotiations of the 1982 United Nations Convention on the Law of the Sea (UNCLOS).[3]

This Article will examine the key challenges that have shaped the evolution of the regime of straits used for international law dating back to the early jurists of the nineteenth century. The common thread has been what David Caron refers to as the *near-far clash of interests* between States bordering straits and the distant shipping States using them. This Article will first examine the dynamics that shaped the development of the regime of straits under international law over the centuries leading to the adoption of Part III of UNCLOS on the regime of straits. The Article will then examine current challenges that were not expressly addressed under UNCLOS. These issues include the status of mandatory pilotage in straits that are ecologically vulnerable and present navigational risks to shipping. It will also assess questions that arise due to the melting of sea ice in the Arctic as a result of climate change and its impact on the status of navigation and protection of the environment in the Northwest Passage. Lastly, the Article will examine the Malacca and Singapore Straits, the Strait of Bab al Mandab, and the Strait of Hormuz as key choke points for the transport of oil that are facing security threats from piracy, robbery, and terrorism.

I. HISTORICAL EVOLUTION OF THE REGIME OF STRAITS

Hugo Grotius and other early scholars of international law, such as de Vattel, saw straits as part of the common interests of the international community.[4] However, this view was not necessarily shared by coastal States that bordered such straits. From the earliest times, the problem of straits concerned the power of the coastal State to control the passage of foreign ships. One well-known example in history is the ancient rule of the Ottoman Empire which gave the Ottoman Sultan unilateral power to close the Turkish Straits to the passage of foreign ships.[5] Another example is found in the Danish/Baltic Straits, where for four centuries Denmark imposed tolls on ships until the signing of the Copenhagen Convention on the Sound and the Belts.[6]

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2. Hugo Caminos, *The Legal Regime of Straits in the 1982 United Nations Convention on the Law of the Sea*, 205 RECUEIL DES COURS: COLLECTED COURSES OF THE HAGUE ACADEMY OF INTERNATIONAL LAW 9, 20 (1987).

3. U.N. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3.

4. *See* EMER DE VATTEL, THE LAW OF NATIONS, OR, PRINCIPLES OF THE LAW OF NATURE, APPLIED TO THE CONDUCT AND AFFAIRS OF NATIONS AND SOVEREIGNS, WITH THREE EARLY ESSAYS ON THE ORIGIN AND NATURE OF NATURAL LAW AND ON LUXURY 256 (Béla Kapossy & Richard Whitmore eds., 2008); Caminos, *supra* note 2, at 20.

5. Caminos, *supra* note 2, at 24. *See also* NILUFER ORAL, REGIONAL CO-OPERATION AND PROTECTION OF THE MARINE ENVIRONMENT UNDER INTERNATIONAL LAW: THE BLACK SEA 24 (2013).

6. GUNNAR ALEXANDERSSON, THE BALTIC STRAITS 70–73 (1982); Treaty for the Redemption of the Sound Dues between Austria, Belgium, France, Great Britain, Hanover, the Hansa Towns,

It is no surprise that the development of international law on straits has centered on finding a balance between two competing interests: that of the coastal States with an inherent interest in regulating shipping activities in these narrow passageways, and that of the shipping States in ensuring freedom of navigation through these critical routes.[7] Hugo Caminos, formerly judge of the International Tribunal for the Law of the Sea, notes in his 1987 Hague lecture, "'[t]his scenario of competing interests in formulating a special legal régime for straits is similar to that existing 350 years ago as Grotius and Selden contested the pros and cons of wide coastal State jurisdiction."[8] In short, there has long been a struggle about how straits should be governed between the interests of the coastal State and the interests of the international community.

The question of the navigational regime for straits has inspired many learned jurists over the centuries to spill significant quantities of ink on the topic. Emer de Vattel, the renowned eighteenth century international law jurist, recognized in *The Law of Nations* (1798), his hallmark treatise on international law, that the separate status of straits from other parts of the ocean, "serve for a communication between two seas, the navigation of which is common to all or several nations, the nation which possesses the strait, cannot refuse the others passage through it, provided that passage be innocent . . . ."[9] On the other hand, similar to Grotius, de Vattel did concede that the coastal State has some limited rights to impose a moderate tax in return for services, such as for protecting ships from pirates and to defray other costs, such as maintaining lighthouses and other things necessary for shipping safety.[10] The first in-depth scholarly examination of international law in relation to straits belongs to the Norwegian jurist Erik Brüel. His now classic work *International Straits* has since been supplemented with a multitude of scholarship on straits.[11]

Mecklenburg-Schwerin, the Netherlands, Oldenburg, Prussia, Russia, Sweden-Norway and Denmark, Mar. 14, 1857, 116 CONSOLIDATED TREATY SERIES Consol. T.S. 357; Convention for the Discontinuance of the Sound Dues between Denmark and the United States, of Apr. 11, 1857, 116 CONSOLIDATED TREATY SERIES Consol. T.S. 465.

7. *See* Caron, *The Great Straits Debate*, *supra* note 1, at 11.

8. Caminos, *supra* note 2, at 20.

9. De Vattel, *supra* note 4, at 256.

10. *Id.*

11. The list of publications on straits is numerous. For example, under the general editorship of Gerard Mangone, followed by Nilufer Oral after his passing, since 1978, seventeen volumes on straits used in international navigation have been published as part of the Brill/Nijhoff series entitled STRAITS OF THE WORLD (Nilufer Oral ed.). *See generally, e.g.,* LEWIS M. ALEXANDER, NAVIGATIONAL RESTRICTIONS WITHIN THE NEW LOS CONTEXT: GEOGRAPHICAL IMPLICATIONS FOR THE UNITED STATES (1986); Caminos, *supra* note 2. *See generally*, J. A. DE YTURRIAGA, STRAITS USED FOR INTERNATIONAL NAVIGATION: A SPANISH PERSPECTIVE (1991); BING BING JIA, THE REGIME OF STRAITS IN INTERNATIONAL LAW (1998); ANA G. LÓPEZ MARTÍN, INTERNATIONAL STRAITS: CONCEPT, CLASSIFICATION AND RULES OF PASSAGE (2010); HUGO CAMINOS & VINCENT P. COGLIATI-BANTZ, THE LEGAL REGIME OF STRAITS: CONTEMPORARY CHALLENGES AND SOLUTIONS (2014).

The importance of straits under international law is further reflected by the attention given to the subject by international law bodies and codification conferences. The Institut de Droit International undertook an examination of straits between the years of 1894 and 1912 and the possibility of a separate regime from that of the territorial sea.[12] The topic was also a subject of study by the International Law Association (ILA) between 1894 and 1910.[13] The question of the legal regime of straits was again a subject of the 1907 Hague Peace Conference, related to the laying of mines, another topic examined by the ILA.[14] Between 1923 and 1936 a series of lectures on straits were given at the Hague Academy, the last one in 1936 by Erik Brüel.[15] In 1924 under the League of Nations, a committee of experts was established to examine questions of international law considered ripe for codification.[16] Different subcommittees were formed and one was tasked with examining the relationship of the rules of the territorial sea to straits.[17] The final report of the experts committee led to the 1930 Hague Codification Conference where three specific topics were to be discussed, which included the question of the regime of straits as part of the topic on the territorial sea.[18]

Lastly, the rights of passage through straits used for international navigation was also the subject matter of the *Corfu Channel*, the very first case brought before the newly established International Court of Justice in 1947.[19] The United Kingdom brought the case against Albania claiming reparation for the loss of two navy destroyers and forty-four personnel from mines in the Corfu Channel, which Albania failed to report as required under international law.[20] One of the important questions that the court addressed concerned the innocent passage rights of the British warships through the territorial waters of Albania in the Corfu Channel, and whether Albania could require prior authorization for passage.[21] On the latter issue, Albania claimed that the Corfu Channel was not in that category of straits in which a right of passage existed as it was only of

12. LÓPEZ MARTÍN, *supra* note 11, at 4–5; *see also* Caminos, *supra* note 2, at 28.
13. LÓPEZ MARTÍN, *supra* note 11, at 5–6.
14. Caminos, *supra* note 2, at 28–29.
15. *Id.* at 35–39.
16. U.N., 1 THE WORK OF THE INTERNATIONAL LAW COMMISSION 3, 7 (8th ed. 2017).
17. Caminos, *supra* note 2, at 30.
18. *See id.* The other two topics were: (1) nationality and (2) the responsibility of states for damage done on their territory to the person or property of foreigners. *See id.*
19. *See generally* The Corfu Channel Case (United Kingdom v. Albania), Judgment, 1949 I.C.J. Rep 4 (Apr. 9).
20. Specifically, the United Kingdom claimed that "Albanian Government either caused to be laid, or had knowledge of the laying of, mines in its territorial waters in the Strait of Corfu without notifying the existence of these mines as required by Articles 3 and 4 of Hague Convention No. VI11 of 1907, by the general principles of international law and by the ordinary dictates of humanity." Application Instituting Proceedings and Documents of the Written Proceedings, Corfu Channel (U.K. v. Alb.) 1494 I.C.J. Pleadings 9–10 (May 22, 1947).
21. The *Corfu Channel Case* (Merits) Judgment of April 9, 1949, p. 27.

secondary importance and not a "necessary route between two parts of the high seas."[22] The United Kingdom, in turn, claiming the application of innocent passage, challenged the Albanian requirement of prior authorization as a condition of the passage of foreign warships in the Corfu Channel.[23] This landmark case brought some clarity to certain unresolved questions concerning the legal regime of straits: in particular, warships enjoyed a customary right to innocent passage through straits used in international navigation in times of peace.[24] Secondly, while the court did not define the elements of an international strait, it made clear that innocent passage rights applied in straits *connecting two parts of the high sea*.[25] The court also rejected the Albanian position that because the Corfu Channel was not a necessary route and only a secondary one, it did not belong to that class of international highways through which the rights of innocent passage exists.[26] The court found that the strait need not be a *necessary* route for a right of innocent passage to exist.[27] The definition of a strait used for international navigation was an issue that would crop up in future disputes between states.

As briefly outlined above, the conflict between international shipping interests and that of the coastal State in straits used in international navigation has influenced the development and codification of international law for centuries.

II. THE CHALLENGES FOR THE LAW OF THE SEA THAT SHAPED THE REGIME OF STRAITS USED IN INTERNATIONAL NAVIGATION

The problem of the legal regime of straits in the twentieth century became intertwined with the thorny problem of the breadth of the territorial sea. David Caron describes the key changes that eventually led coastal States to seek greater regulatory control over foreign shipping:

> The law of the sea present in custom in the 1800s began to collapse at the outset of the 20th century. This collapse in part began because of improvements in technology that opened the oceans to more and more exploitation. First, the advent of steam engines and of refrigeration meant that more efficient and more distant fisheries emerged. Second, the discovery of oil offshore and the development of the capacity to exploit that

22. *See id.* at 28. Regardless of innocent passage rights, Albania had further claimed that the passage of the British warships was not innocent. *Id.* at 30. Albania pointed to subjective elements of the political intent of Britain to intimidate Albania through combat formation and gun positioning. *Id.*

23. *Id.* at 27. *See also* Memorial Submitted by the Government of the United Kingdom of Great Britain and of Northern Ireland, Corfu Channel (U.K. v. Alb.), 1949 I.C.J. Pleadings 19, 42, 45 (Sept. 30).

24. *Corfu Channel*, *supra* note 21, at 28. For a detailed discussion on straits and the law of war see HUGO CAMINOS & VINCENT P. COGLIATI-BANTZ, THE LEGAL REGIME OF STRAITS: CONTEMPORARY CHALLENGES AND SOLUTIONS, 11–39 (2014).

25. *Corfu Channel*, *supra* note 21, at 28.

26. *Id.* at 28–29.

27. *Id.*

> resource lead [sic] to more and more offshore oil development. These two factors led coastal states to look to claim greater and greater bands of coastal waters. That tendency, the tendency to enclose the oceans, led to the possibility that many straits of the world—previously open to free navigation—would slip in whole or in part under national jurisdiction.[28]

Because the world transitioned to a petroleum-based economy, the importance of offshore oil deposits continued to increase and made its mark on the question of the breadth of the territorial sea and the regime of straits. The launching of the first tanker in the Caspian Sea in 1878 to transport oil[29] marked the beginning of a new era. As the world economy transformed from coal and steam to petroleum oil, the number of oil tankers at play in global waters increased. And these tankers created both operational and accidental pollution of the seas. International concern over oil pollution dates back to 1926 when the United States convened a governmental conference to draft a treaty regulating intentional oil discharges.[30] The first international treaty addressing oil pollution was the 1954 International Convention for the Prevention of Pollution at Sea by Oil.[31] The advent of super tankers carrying millions of tons of oil and the transport of nuclear waste by sea created an equally unacceptable threat of costly environmental pollution and health risks to coastal States.[32] The 1967 *Torrey Canyon* tanker accident, which occurred off the coast of Northern England, was the first major incident that highlighted the dangers of pollution to coastal States.[33] The risk of oil spills from tankers was one of the issues that shaped the debates at the third United Nations Conference on the Law of the Sea, that took place between 1973 and 1982 (UNCLOS III). The concerns of pollution from tankers was best expressed by Malaysia, which was of the view that the mere passage of such tankers in straits constituted non-innocent passage.[34] Coastal State environmental concerns played an important role in the negotiation of the straits regime during the Third Conference on the Law of the Sea.[35] Whereas, in

28. Caron, *The Great Straits Debate*, *supra* note 1, at 11–12.

29. DANIEL YERGIN, THE PRIZE: THE EPIC QUEST FOR OIL, MONEY & POWER 42–54 (1991).

30. Z. OYA OZCAYIR, LIABILITY FOR OIL POLLUTION AND COLLISIONS 171 (1998).

31. International Convention (with annexes) for the Prevention of Pollution of the Sea by Oil, 1954, May 12, 1954, 327 U.N.T.S. 3.

32. Jon M. Van Dyke, *Transit Passage Through International Straits* 188, *in* THE FUTURE OF OCEAN REGIME-BUILDING: ESSAYS IN TRIBUTE TO DOUGLAS M. JOHNSTON 178 (Aldo Chircop, Ted L. McDorman, Susan J. Rolston eds., 2009).

33. *See Brief history of the IMO*, INTERNATIONAL MARITIME ORGANIZATION, http://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx (last visited Feb. 21, 2019); *see also* Ved P. Nanda, *The "Torrey Canyon" Disaster: Some Legal Aspects,* 44 DENV. L.J. 400, 400–01 (1967).

34. Van Dyke, *supra* note 32, at 188.

35. Caron, *The Great Straits Debate*, *supra* note 1, at 26–28 (citing Munadjat Panusaputro, *Elements of an Environmental Policy and Navigational Scheme for Southeast Asia, with Special Reference to the Straits of Malacca*, *in* REGIONALIZATION OF THE LAW OF THE SEA, PROCEEDINGS OF THE 11TH ANNUAL CONFERENCE OF THE LAW OF THE SEA INSTITUTE 178–81 (Douglas M. Johnston ed., 1977)).

the past the regime of the passage of straits was not considered separately but included as part of the regime of the territorial sea.[36]

Following the 1930 Hague Codification, it was not until the 1950s that the governments reconvened to codify a new treaty on the law of the sea. The work of the International Law Commission on the law of the sea and the regime of the high seas laid the foundation for the first conference on the law of the sea (UNCLOS I) held in 1958.[37] Resolution of the maximum breadth of the territorial sea escaped resolution under the 1958 Geneva set of Conventions[38] and narrowly in 1960 during UNCLOS II.[39] The unresolved issue of the breadth of territorial seas was among the critical issues addressed by the delegates to UNCLOS III. The 1958 Geneva Convention on the Territorial Sea and Contiguous Zone[40] remained silent on this issue but codified the right of foreign flagged ships to have innocent passage through the territorial sea, including the requirement that submarines navigate on the surface and show their flag.[41] The only reference to straits concerned the prohibition of the suspension of innocent passage of foreign ships in paragraph 4 of article 16.[42]

The expansion of the breadth of the territorial sea from what was considered to be the customary international rule of three to twelve nautical miles (nm) meant that significant areas that were subject to the high seas regime of freedom would fall under the control and regulation of coastal States as provided under the innocent passage regime. It is not surprising that maritime interests and in particular naval powers were not favorable to the loss of their freedom of movement in the high seas. On the other hand, coastal States wary of foreign shipping activities near their coast, especially in light of technological

36. LÓPEZ MARTÍN, *supra* note 11, at 14.

37. Caminos, *supra* note 2, at 44–45. Mr. J.P.A. François was appointed as Special Rapporteur and during that time period prepared a total of eight reports for the Commission. *See Analytical Guide to the Work of the International Law Commission*, INTERNATIONAL LAW COMMISSION, http://legal.un.org/ilc/guide/8_1.shtm (last accessed Feb. 21, 2019).

38. The Convention on the Territorial Sea and the Contiguous Zone, Apr. 29, 1958, 516 U.N.T.S. 205; Convention on the High Seas, Apr. 29, 1958, 450 U.N.T.S. 11; Convention on the Continental Shelf, Apr. 29, 1958, 499 U.N.T.S. 311; Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 559 U.N.T.S. 285.

39. *See generally* Convention on the Territorial Sea and the Contiguous Zone, Apr. 29, 1958, 516 U.N.T.S. 205; Convention on the High Seas, Apr. 29, 1958, 450 U.N.T.S. 11; Convention on the Continental Shelf, Apr. 29, 1958, 499 U.N.T.S. 311; Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 559 U.N.T.S. 285. The United States and Canada had submitted a common proposal which allowed for the coastal State to extend the breadth of its territorial sea up to six nautical miles and to establish a fishery zone in the high seas contiguous to the territorial sea of up to twelve nautical miles. However, the proposal failed by one vote to obtain the necessary two-thirds majority. *See* YTURRIAGA, *supra* note 11, at 40.

40. *See generally* Convention on the Territorial Sea and the Contiguous Zone, *supra* note 39, at arts. 14–17.

41. *Id.* at art.14(6)

42. *Id.* at art.16(4).

developments, including the threat from the transport of oil, sought greater regulatory control afforded by an expansion of the territorial sea.[43]

Consequently, during UNCLOS III the lines were drawn between those States seeking a wide territorial sea up to twelve nm and the maritime States who sought to preserve their right to unimpeded passage, in particular the United States and later the Union of Soviet Socialist Republics,[44] especially in straits where extension of the breadth of the territorial sea to twelve nm would swallow up high seas areas. For naval powers, the right of free and unimpeded passage for warships, and in particular for submarines, was critical and non-negotiable.[45] The United States had consistently defended a narrow territorial sea and later conditioned its acceptance of a twelve nm territorial sea on preserving high seas freedoms of passage in international straits.[46] States bordering straits were equally vocal and persistent. These States wanted to maintain innocent passage in straits while also ensuring their ability to regulate navigation and protect the marine environment.[47] An eventual compromise solution was achieved with an entirely new regime of "transit passage," introduced by the United Kingdom.[48]

Under the 1958 Geneva Convention only one subparagraph is devoted to straits.[49] By contrast, Part III of UNCLOS is exclusively devoted to the regime of straits used in international navigation with a total of twelve articles, excluding article 233 in Part XII.[50] Without question, straits used for international navigation acquired new prominence under UNCLOS, underscoring the importance of these waterways under international law.

III. THE REGIME OF STRAITS USED FOR INTERNATIONAL NAVIGATION UNDER UNCLOS

Part III of UNCLOS established multiple categories of straits and applicable regimes. Broadly speaking one can begin with separating those straits that fall

43. *See, e.g.*, YTURRIAGA, *supra* note 11, at 68–76.

44. *Id.* at 42–48. *See also* Caron, *The Great Straits Debate*, *supra* note 1, at 13–14.

45. James Kraska, *The Strategic Foundation of the Law of the Sea*, *in* OCEAN LAW DEBATES: THE 50-YEAR LEGACY AND EMERGING ISSUES FOR THE YEARS AHEAD 208–13 (Harry N. Scheiber, Nilufer Oral, Moon-Sang Kwon eds., 2018).

46. *See* William L. Jr. Schachte and J. Peter A. Bernhardt, *International Straits and Navigational Freedoms*, 33 VA. J. INT'L L. 527, 530–31 (1993).

47. The "Strait States" included Spain, Malaysia, Indonesia, Philippines, Cyprus, Egypt, Morocco, and Yemen. *See* YTURRIAGA, *supra* note 11, at 73.

48. Third Conference on the Law of the Sea, *United Kingdom: Draft Articles on the Territorial Sea and Straits* U.N. Doc. A/CONF.62/C.2/L.3, Ch. 3, art. 1 (July 3,1974).

49. *Geneva Convention on the Territorial Sea and the Contiguous Zone*, 29 April 1958, 516 U.N.T.S. 205.

50. Article 233 allows a State bordering strait to take appropriate enforcement measures against a foreign ship that has committed a violation of the laws and regulations referred to in article 42, paragraph 1(a) and (b) of the Convention and that causes or threatens major damage to the marine environment of the strait. *See* U.N. Convention on the Law of the Sea, *supra* note 3, at art. 233. There is an exception for ships that have sovereign immunity under article 236. *Id.* at art. 236.

under Part III and those that are excluded, such as straits that form part of the internal waters of a State,[51] straits that are regulated in whole or in part by long-standing international conventions,[52] and straits that are not used for international navigation.[53] The different categories of straits are important for determining the rules of passage that apply. There are straits that are subject to the transit passage regime and those where the traditional customary passage of nonsuspendable innocent passage regime applies.

Innocent passage is defined as passage that is "not prejudicial to the peace, good order, or security of the coastal State."[54] Article 19 of UNCLOS includes a non-exhaustive list of acts that would be considered to be non-innocent and thereby allow the coastal State to interfere with the passage of the ships.[55] These are: (a) any threat or use of force against the sovereignty, territorial integrity, or political independence of the coastal State, 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 State; (d) any act of propaganda aimed at affecting the defense or security of the coastal State; (e) the launching, landing, or taking on board of any aircraft; (f) the launching, landing, or taking on board of any military device. [56] In straits subject to the innocent passage regime, the coastal State cannot suspend innocent passage.[57] Whereas, in the territorial sea regime the coastal State with due notification may, without discrimination in form or in fact, temporarily suspend, in specified areas of its territorial sea, the innocent passage of foreign ships.[58]

The regime of nonsuspendable innocent passage applies in straits used for international navigation between a part of the high seas or an exclusive economic zone and the *territorial sea* of a foreign State, commonly referred to as "dead end" straits.[59] In addition, the regime of nonsuspendable innocent passage applies in straits used for international navigation which include a route through the high seas or an exclusive economic zone, if this route is of similar

51. Article 35(a) excludes "any areas of internal waters within a strait, except 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." *Id.* at art. 35(a). Original cites to 35(c).

52. *Id.*

53. *See* Table 1, *infra* Part III.

54. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 19(1).

55. *Id*. at art. 19(2).

56. *Id.*

57. *Id.* at art. 45(2).

58. *Id.* at art. 25(3).

59. *Id*. at art. 45(2); *see* BOLESLAW A. BOCZEK, INTERNATIONAL LAW: A DICTIONARY 313 (2005).

convenience with respect to navigational and hydrographical characteristics.[60] This is also known as "the Messina Clause."[61]

The transit passage regime is defined under article 37 of UNCLOS. It applies to straits that are used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.[62] The duties of ships and aircraft engaged in transit passage were further clarified to require the following:

- proceed without delay through or over the strait;
- refrain from any threat or use of force against the sovereignty, territorial integrity, or political independence of States bordering the strait, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;
- refrain from any activities other than those incident to their normal modes of continuous and expeditious transit unless rendered necessary by *force majeure* or by distress; and
- comply with other relevant provisions of this Part.[63]

Lastly, under the regime of innocent passage, submarines are required to engage in surface passage and show their flag whereas transit passage makes no express mention of submarine passage. The reference to normal *modes of continuous and expeditious transit* presumably means submerged passage for submarines.[64]

60. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 36.

61. Tullio Scovazzi, *The Strait of Messina and the Present Regime of International Straits, in* NAVIGATING STRAITS: CHALLENGES FOR INTERNATIONAL LAW, *supra* note 1, at 143–45.

62. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 37.

63. *Id.* at art. 39(1)(a)–(d).

64. U. N. CONVENTION ON THE LAW OF THE SEA, 1982: A COMMENTARY 342 (Myron Nordquist, Satya N. Nandan, & Shabtai Rosenne eds., 1993).

Table 1
Categories of Straits under UNCLOS

Transit Passage Straits	**Nonsuspendable Innocent Passage Straits**	**Excluded from Part III of UNCLOS**
Straits 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.	Straits used for international navigation with a route through the high seas or an exclusive economic zone of similar convenience ("Messina Strait" exception) (article 36).	Straits that form part of the internal waters of a State. (article 35(a)).
--	Straits used for international navigation between a part of the high seas or an exclusive economic zone and the *territorial sea* of a foreign State ("dead end" straits).	Straits that are regulated in whole or in part by long-standing international conventions. (article 35 (c)).
--	--	Straits that are not used in international navigation.

A. Transit Passage vs. Nonsuspendable Innocent Passage

The adoption of the entirely new transit passage regime was one of the most important outcomes of UNCLOS III on the question of straits. It was a regime borne of political compromise with no historical legal precedent.[65] One of the important compromises was that in return for the right of expedited passage for ships engaged in transit passage, States bordering straits were allowed to take certain measures for increased safety of navigation as well as pollution prevention. For example, under Part III of UNCLOS, ships engaged in transit passage are obliged to comply with generally accepted international regulations, procedures, and practices for safety at sea, including the International

65. *See* Said Mahmoudi, *Transit Passage*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW (2008), https://cil.nus.edu.sg/wp-content/uploads/2017/11/Said-Mahmoudi-Transit-Passage-2008-EPIL.pdf.

Regulations for Preventing Collisions at Sea.[66] They are also required to comply with "generally accepted international regulations, procedures and practices for the prevention, reduction and control of pollution from ships." This refers implicitly to the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).[67] Nonetheless, the transit passage regime, in contrast to "nonsuspendable innocent passage," gives the State bordering a strait much more limited regulatory competence to regulate foreign shipping for protection of the environment and safety of navigation. For example, any passage that willfully causes serious pollution in violation of the 1982 UNCLOS renders that passage non-innocent.[68] Once a passage is classifiable as non-innocent, a coastal State may take enforcement measures. There is no parallel provision for transit passage. However, article 233 (Part XII) allows the State bordering a strait to take enforcement action if a foreign ship violates the coastal State's navigation safety and maritime traffic laws.[69] Moreover, a coastal State may take action against violations of its pollution laws. Perhaps one could argue that in the case of actual or likely threat of "major" damage to the marine environment of the straits, ships are deemed to have lost their transit passage rights. For example, the States bordering the Malacca Straits have interpreted article 233 as permitting them to take enforcement measures against ships that fail to meet the 3.5 meter under-keel clearance requirement that they have established.[70]

More importantly, under the innocent passage regime, the coastal State has broad prescriptive competence to adopt laws and regulations for *inter alia* safety of navigation and maritime traffic, preservation of the environment of the coastal State, and the prevention, reduction, and control of pollution. It also has competence to adopt laws and regulations for the conservation of the living resources of the sea.[71] In addition, States bordering straits where transit passage applies, may establish sea lanes and traffic separation schemes.[72] However, they must conform to generally accepted international regulations that are adopted by the competent international organization.[73] The competent international organization is understood to be the International Maritime Organization

66. Mary George, *Transit Passage and Pollution Control in Straits under the 1982 Law of the Sea Convention*, 33 OCEAN DEV. & INT'L L. 189, 195 (2002).

67. Nov. 2, 1973, 1340 U.N.T.S. 61.

68. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 19(2)(h).

69. *Id.* at art. 233.

70. Mary George, *The Regulation of Maritime Traffic in Straits Used for International Navigation*, *in* OCEANS MANAGEMENT IN THE 21ST CENTURY: INSTITUTIONAL FRAMEWORKS AND RESPONSES 33–36 (Alex G. Oude-Elferink & Donald R. Rothwell eds., 1982).

71. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 21.

72. *Id.* at art. 22.

73. *Id.* at art. 41(3).

(IMO).[74] Furthermore, the State bordering a strait must obtain the approval of any other States bordering the strait in question.[75] Article 42(1)(a) allows States bordering straits to adopt laws and regulations for the safety of navigation and the regulation of maritime traffic only as provided under article 41.[76] This means that the State can only establish sea lanes and traffic separation schemes adopted by the competent international organization (i.e. IMO).[77] In addition, article 42(1)(b) allows States bordering straits to adopt laws and regulations relating to transit passage that give effect to applicable international regulations regarding the discharge of oil, oily wastes, and other noxious substances in the strait.[78] However, while the coastal State under the innocent passage regime can require tankers, nuclear-powered ships, and ships carrying inherently dangerous or noxious substances to confine their passage to sea lanes,[79] and also to carry certain documents, and observe special precautionary measures,[80] the transit passage does not have any similar provisions.[81] Article 22(2) allows the coastal State to impose requirements, such as carrying documents or adopting precautionary measures, without obtaining the approval of the IMO.[82] Whereas, those States bordering straits subject to the transit passage would have to submit such measures to the IMO for approval. The IMO approval process can be time-consuming and result in a rejection or an amended approval based on the differing views and interests represented by the IMO member governments.

A small concession given to States bordering straits used for transit passage is the additional enforcement competence found in article 233, which allows such States to take enforcement measures against foreign-flagged vessels in the case of actual or threatened major damage to the environment.[83] Arguably, at least in the case of actual or likely threat of "major" damage, ships are deemed to have lost their transit passage rights. For example, the States bordering the Malacca Straits have interpreted article 233 as permitting them to take enforcement measures against ships that fail to meet the 3.5 meter under-keel clearance requirement that they have established.[84]

74. *See generally* A. Blanco-Bazán, *IMO Interface with the Law of the Sea Convention*, *in* CURRENT MARITIME ISSUES AND THE INTERNATIONAL MARITIME ORGANIZATION 269–87 (Myron H. Nordquist & John N. Moore eds., 1999).

75. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 41(4).

76. Article 42(1)(a) provides that "Subject to the provisions of this section, States bordering straits may adopt laws and regulations relating to transit passage through straits, in respect of all or any of the following:(a) the safety of navigation and the regulation of maritime traffic, as provided in article 41." *Id.* at art 42(1)(a).

77. *See id*.

78. *Id*.

79. *Id.* at art. 22(2).

80. *Id.* at art. 23.

81. *See id.* at arts. 17–32.

82. *Id.*

83. Van Dyke, *supra* note 32, at 184–86.

84. George, *Transit Passage and Pollution Control*, *supra* note 66, at 195.

The key issues that dominated the negotiations during UNCLOS III and the regime of straits focused on resolving the demands for unimpeded passage by the maritime power States and that of the States bordering straits to protect their coastal areas from the navigational and environmental risks associated with shipping. This is what David Caron described as the "'near-far' clash of interests."[85] The transit passage regime sought to mediate these different demands. Some thirty-six years have passed since the adoption of the UNCLOS in 1982, and the resolution of the straits issues that dominated international law. However, in the twenty-first century, straits used for international navigation continue to raise issues and problems that do not have clear or ready answers in UNCLOS. The following issues will be examined as examples of some of the current challenges in straits used in international navigation: mandatory pilotage in the Torres Strait and Strait of Bonifacio, the status of the legal regime of the Northwest Passage, and security issues in recognized chokepoints such as the Straits of Malacca and Singapore and the Strait of Bab-el Mandab.

IV. CHALLENGES IN THE TWENTY-FIRST CENTURY

A number of issues related to straits used for international navigation remain unanswered under UNCLOS. For example, one question is whether mandatory pilotage can be imposed in areas that are at high risk for accidents and/or are ecologically sensitive, such as the Torres Strait. Another issue concerns the impacts of climate change. As the temperature warms and sea ice melts, the Arctic is opening up the possibility of full year circumpolar navigation in areas such as the Northwest Passage, an area considered by Canada to be part of its internal waters. Other issues that remain a challenge for chokepoint straits such as the Malacca and Singapore Straits, the Bab al Mandab Strait, and the Strait of Hormuz involve security matters. With the exception of piracy in the high seas, security is not expressly addressed under UNCLOS.

A. The Torres Strait, Strait of Bonifacio, and Mandatory Pilotage

The Torres Strait is considered to be one of the most hazardous and navigationally difficult stretches of water in the world due to its shallowness and numerous islands, shoals, reefs, and small islets.[86] It is routinely used by international shipping, where they pass through the 800-meter wide Prince Charles Channel.[87] The northern half of the strait is only navigable by vessels with a very shallow draft, and deep draft vessels are restricted to using narrow

85. *See* Caron, *The Great Straits Debate*, *supra* note 1, at 11.

86. *See* Donald K. Anton, *Making or Breaking the International Law of Transit Passage? Meeting Environmental and Safety Challenges in The Torres Strait with Compulsory Pilotage*, NAVIGATING STRAITS, *supra* note 1, at 51–52, 56.

87. *Id.* at 52.

channels between the various islands off Cape York, principally the Prince of Wales Channel immediately North of Hammond Island.[88] The strait is also located in the Great Barrier Reef, a World Heritage Site protected under the World Heritage Convention as one of the most biologically diverse and fragile marine areas.[89] In 1990 the Great Barrier Reef, at the request of Australia, was also the first particularly sensitive sea area (PSSA) designated by the IMO.[90]

The associated protective measures for the PSSA included mandatory pilotage for the northern part of the Great Barrier Reef Inner route—an internal water of Australia and thus not subject to UNCLOS. Also, the measures recommended pilotage for the Torres Strait Great Barrier Reef Inner Route[91] for "all loaded oil, chemical tankers, and liquefied gas carriers."[92]

In 2003 following the grounding of the bulk carrier *Aegean Falcon*, Australia and Papua New Guinea jointly proposed to the IMO the extension of the PSSA of the Great Barrier Reef that had been established in 1990 by the IMO.[93] The joint proposal included two associated protection measures: (1) the establishment of a two-way route through the Torres Strait for the first time, and (2) the much more controversial extension of the existing Great Barrier Reef region compulsory pilotage area to include the Torres Strait.[94]

The request for mandatory pilotage was first discussed in the Marine Environment Protection Committee (MEPC) of the IMO. In an extensive analysis of the question of compulsory pilotage in the Torres Strait, Don Anton explains that initially, with very little debate, the MEPC gave its preliminary

88. *See id.* at 51–52.

89. U.N. Convention for the Protection of the World Cultural and Natural Heritage, Nov. 16, 1972, 27 U.S.T. 37, 1037 U.N.T.S. 151; *see Great Barrier Reef*, UNESCO WORLD HERITAGE LIST, https://whc.unesco.org/en/list/154/documents/ (last visited May 23, 2019).

90. A PSSA is defined as "an area that needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities." International Maritime Organization, *Res A.720(17) Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas* 58 (1991); International Maritime Organization, IMO *Res A.885(21) on 'Procedures for the Identification of Particularly Sensitive Sea Areas and the Adoption of Associated Protective Measures' as amended by IMO Res A.720(17) 'Amendments to the Guidelines' as amended by IMO Res A.982(24) on Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas* (2005), revoking Annex II of Res A.720(17). *See* Anton, Making or Breaking the International Law of Transit Passage?, *supra* note 86, at 58.

91. Resolution MEPC.45(30).

92. IMO, *Use of Pilotage Services in the Torres Strait and the Great North East Channel*, Resolution A.710(17) (Nov. 6, 1991). *See Australia, PNG push for mandatory Torres pilotage*, LLOYD'S LIST AUSTRALIA DCN (July 1, 2004). This extended a 1987 IMO resolution recommending that certain classes of vessel use a pilot when passing through the Strait and Great Barrier Reef area. *Use of Pilotage Services in the Torres Strait and Great Barrier Reef Area*, IMO Resolution A.619(15) (adopted, 16 November 1987). *See* Anton, *supra* note 86, at 58.

93. Anton, *supra* note 86, at 59–60.

94. *Id.* at 60.

approval to the extension of the PSSA.[95] The issue of compulsory pilotage was referred to the fiftieth session of the IMO Subcommittee on the Safety of Navigation (NAV) where concerns about the legality of mandatory pilotage were expressed.[96] These concerns included questions on the legality of compulsory pilotage under international law in a strait used for international navigation.[97] At the end of these debates, NAV agreed that the measure for compulsory pilotage was "operationally feasible and largely proportionate to provide protection to the marine environment."[98] Therefore, NAV invited the MEPC "to consider whether there might be a need to develop guidelines and criteria for compulsory pilotage in straits used for international navigation notwithstanding the diverse view of delegations regarding a legal basis for such a regime."[99] The question was then sent to the IMO Legal Committee in October 2004 where it was the subject of intense debates.[100]

The matter divided the IMO.[101] In the end, the IMO found a compromise by extending the PSSA and leaving silent as to whether pilotage was mandatory.[102] Part of the compromise also included an agreement to include in the MEPC final report a statement made by the United States and supported by several other States recognizing that the "[r]esolution is recommendatory and provides no international legal basis for mandatory pilotage for ships in transit in this or any other strait used for international navigation. The U.S. could not support the resolution if this committee took a contrary view."[103]

Notwithstanding the opposition by the United States and some other States in 2006, Australia adopted national legislation making pilotage mandatory in the Torres Straits for all vessels of seventy meters or more in overall length and for all loaded oil and chemical tankers or liquefied gas carriers of any length.[104] However, certain States such as the United States and Singapore continue to express concern over compulsory pilotage in the Torres Strait.[105]

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95. IMO, REPORT OF THE MARINE ENVIRONMENT COMMITTEE ON ITS FORTY-NINTH SESSION, IMO Doc. MEPC 49/22, ¶¶ 8.25–8.27 (Aug. 8, 2003). Prior to action by MEP, an Informal Technical Group required very little time to agree that all the environmental criteria were satisfied and unanimously agreed, in principle, that the Torres Strait be designated as a PSSA and that the compulsory pilotage APM be approved. *Report of the Informal Technical Group*, IMO Doc. MEPC 49/WP.10 (July 16, 2003) (On file with author).

96. Anton, *supra* note 86, at 60.

97. *Id*. at 60–64.

98. *Id*. at 61 (quotations omitted).

99. *Id.* at 61–62 (quotations omitted).

100. *Id.* at 62; *see also* IMO, REPORT OF THE LEGAL COMMITTEE ON THE WORK OF ITS EIGHTY-NINTH SESSION, IMO DOC. LEG 89/16, Section O (Nov. 4, 2004) .

101. Anton, *supra* note 86, at 62–64.

102. IMO, Marine Env'l Prot. Comm. Res. 133(53) (July 22, 2005).

103. Anton, *supra* note 86, at 63–64 (quotations omitted).

104. *Id*. at 64.

105. *Id*. at 83.

B. Strait of Bonifacio

The Strait of Bonifacio is located between Sardinia and Corsica and measures eleven kilometers at its narrowest point.[106] It is a strait used for international navigation and subject to the transit passage regime. However, it is also an area known for its biological diversity and ecological vulnerability to shipping activities.[107] The ecological importance of the strait has been recognized at the global level. In 1993 the IMO adopted a resolution that recommended that governments prohibit or at least strongly discourage the transit in the Strait of Bonifacio of laden oil tankers and ships carrying dangerous chemicals or substances in bulk.[108] In 1993 by national decrees both Italy and France banned the passage of all Italian and French tankers carrying petroleum, petroleum products, or other dangerous or toxic substances through the Bonifacio Strait.[109] The Strait of Bonifacio also falls within the Pelagos Sanctuary that was created in 1999 as a specially protected marine area of Mediterranean importance.[110] Moreover, it is the first protected area inscribed to the Protocol for Specially Protected Areas of Mediterranean Importance[111] under the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean.[112] Additionally, parts of the Strait have been listed as Natura 2000 sites of European Importance.[113]

The Australian-Papua New Guinea proposal for mandatory pilotage in the Torres Straits may have influenced the decision of the Italian and French governments to make a similar joint proposal for the Bonifacio Strait. In 2010, France and Italy had jointly submitted an application to the IMO for designation

106. *See Strait of Bonifacio*, NOSTRA NETWORK OF STRAITS, http://www.nostraproject.eu/Partnership/Strait-of-Bonifacio (last visited May 23, 2019).

107. *Id.* B. Sorgente, R Sorgente, A Olita, L Fazioli, A Cucco, A. Perilli, M Sinerchia & A Ribotti et al., *Effects of protection rules and measures in an important international strait area: the Bonifacio Strait*, 5 J. OF OPERATIONAL OCEANOGRAPHY, 5:1, 35–44 (2012).

108. IMO Res. A.766(18), *Navigation in the Strait of Bonifacio* (Nov. 17, 1993).

109. *See*, REPORT OF THE LEGAL COMMITTEE ON THE WORK OF ITS EIGHTY-NINTH SESSION, *supra* note 100, Section O.

110. *See* International Agreement for the Creation of a Mediterranean Sanctuary for Marine Mammals, Nov. 25, 1999 (Fr.– It.–Monaco).

111. *See* Protocol Concerning Mediterranean Specially Protected Areas, Apr. 3, 1982, *amended and renamed* Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, June 10, 1995, 2102 U.N.T.S. 203.

112. Convention for the Protection of the Mediterranean Sea against Pollution, Feb. 16, 1976, *amended and renamed* Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, June 10, 1995. See G. Notarbartolo di Sciara, T. Agardy, D. Hyrenbach, T. Scovazii and P. Van Klaveren, *The Pelagos Sanctuary for Mediterranean Marine Mamals*, 18 AQUATIC CONSERVATION: MARINE AND FRESHWATER ECOSYSTEM 367 (2008); Giuseppe Notarbartolo di Sciara, David Hyrenbach, and Tundi Agardy, *The Pelagos Sanctuary for Mediterranean Marine Mammals*, 2 LESSONS IN CONSERVATION (2008) 91–109

113. *See* Tulio Scovazzi & Ilaria Tani, *Problems Posed by Marine Protected Areas Having a Transboundary Character*, *in* 29 MARINE TRANSBOUNDARY CONSERVATION AND PROTECTED AREAS 17–34 (Peter Mackelworth ed., 2016).

of a PSSA in the Strait of Bonifacio.[114] The application originally included *inter alia* a request for mandatory pilotage.[115] However, later this request was withdrawn by Italy and France.[116] The decision to withdraw the request for mandatory pilotage was greeted favorably by States such as Singapore, which expressed "its firm position that the imposition of a mandatory pilotage system in straits used for international navigation has no international legal basis, and would contravene Article 42(2) of the United Nations Convention on the Law of the Sea."[117]

Pilotage is not expressly provided for in any UNCLOS provisions. The only navigational measures expressly mentioned in the Convention are sea lanes, traffic separation schemes in article 41, and the general reference to international regulations and standards for safety of navigation—which would include collision prevention measures under the International Regulations for Preventing Collisions at Sea 1972,[118] safety of navigation measures under the International Convention for the Safety of Life at Sea,[119] and the IMO General Provisions on Ships' Routing. Moreover, as the competent international organization implicitly recognized in UNCLOS, the IMO has the competence to adopt measures necessary for the protection of safety of navigation and protection of the marine environment.[120] Pilotage is clearly such a measure. In 1968 the IMO adopted a resolution on pilotage that governments:

> should organize pilotage services in those areas where such services would contribute to the safety of navigation in a more effective way than other possible measures and should, where applicable, define the ships or classes of ships for which employment of a pilot would be mandatory.[121]

Since then, the IMO has adopted several resolutions recommending pilotage in certain areas, where deemed clearly necessary for safety of navigation and pollution prevention.[122] The outstanding question of the joint Australia-Papua

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114. *See generally* IMO, Rep. of the Mar. Envtl. Prot. Comm., MEPC 61/9, *Designation of the Strait of Bonifacio a Particularly Sensitive Sea Area* (June 25, 2010).

115. *Id.* at 2.

116. IMO, *Rep. of the Mar. Envtl. Prot. Comm. on its Sixty-First Session*, MEPC 61/24 ¶ 9.3 (Oct. 6, 2010).

117. *Id.* at ¶ 9.5.

118. Convention on the International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 1050 U.N.T.S. 16.

119. International Convention for the Safety of Life at Sea, Nov. 1, 1974, 1184 U.N.T.S. 2.

120. A Blanco-Bazán, *supra* note 74, at 272–82.

121. IMO, Assembly Res. A.159(ES.IV), *Recommendation on Pilotage* (1968).

122. IMO Resolution A.480(IX) (adopted in 1975) recommends the use of qualified deep-sea pilots in the Baltic and Resolution A.620(15) (adopted in 1987) recommends that ships with a draught of thirteen meters or more should use the pilotage services established by Coastal States in the entrances to the Baltic Sea; A.486(XII) (adopted in 1981) recommends the use of deep-sea pilots in the North Sea, English Channel, and Skagerrak; A.579(14) (adopted in 1985) recommends that certain oil tankers, all chemical carriers, gas carriers, and ships carrying radioactive material using the Sound (which separates Sweden and Denmark) use pilotage services; A.668(16) (adopted in 1989) recommends the use of pilotage services in the Euro-Channel and IJ-Channel (in the Netherlands); A.710(17) (adopted in 1991) recommends ships

New Guinea request for mandatory pilotage in the Torres Strait was whether such a measure was in violation of transit passage under international law. The question remains unresolved as States are split on the matter.[123] Nonetheless, there is no doubt that the IMO as the competent international organization for shipping under UNCLOS could further work on this important legal issue. As it stands, it remains an open question whether pilotage can be made mandatory under international law for straits used in international navigation that are found in ecologically sensitive waters and pose a risk to safety of navigation.

C. Climate Change and the Northwest Passage

Climate change is rapidly melting ice in the Arctic Ocean, opening up once frozen seas to international shipping. In 2007 for the first time in recorded history the fabled Northwest passage was temporarily opened to shipping,[124] and in 2016 the first luxury cruise liner the *Crystal Serenity* made history as the first voyage through the Northwest Passage.[125] In August of 2018, Maersk shipping, the largest shipping company in the world, announced it would send for the first time a container ship through the Russian Northeast Passage.[126]

The regime of passage for the Northwest Passage has long been a source of dispute between the United States and Canada, the latter claiming sovereignty and that the Northwest Passage is part of its internal waters. The United States has consistently refuted these claims.[127] The Canadian position became crystallized in reaction to the voyage of the United States oil tanker, the *SS Manhattan* in 1969, which sought passage through the Northwest Passage, using ice breakers without obtaining Canada's permission.[128] In reaction Canada

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of over seventy meters in length and all loaded oil tankers, chemical tankers, and liquefied gas carriers, irrespective of size, in the area of the Torres Strait and Great North East Channel, off Australia, use pilotage services; A.827(19) (adopted in 1995) on Ships' Routing includes in Annex 2 Rules and Recommendations on Navigation through the Strait of Istanbul, the Strait of Canakkale, and the Marmara Sea recommends that "Masters of vessels passing through the Straits are strongly recommended to avail themselves of the services of a qualified pilot in order to comply with the requirements of safe navigation." IMO, *Pilotage*, *available at* http://www.imo.org/en/ourwork/safety/navigation/pages/pilotage.aspx.

123. The views of some States can be found in IMO records. *See, e.g.*, IMO, Sub-Comm. on Safety of Navigation, Doc. NAV 50/19, *Report to the Maritime Environment Protection Committee* (July 28, 2004). *See also* MARKUS J. KACHEL, PARTICULARLY SENSITIVE SEA AREAS: THE IMO'S ROLE IN PROTECTING VULNERABLE AREAS, 203, 202–04 (2008).

124. Gwladys Fouché, *North-West Passage is now plain sailing*, THE GUARDIAN, (Aug. 28, 2007).

125. The Crystal Serenity cruised thirty-two days through the Northwest Passage with one thousand passengers. It returned the next year, but later the company announced that the ship would not be returning to the Northwest Passage. *See No More Crystal Serenity in the Northwest Passag*e, HIGH NORTH NEWS, Dec. 13, 2017, http://www.highnorthnews.com/no-more-crystal-serenity-in-the-northwest-passage/.

126. Michael Selby-Green, *The world's largest shipping company is launching an Arctic route—and it's a worrying sign for the future of the planet*, BUSINESS INSIDER NORDIC, Aug. 23, 2018.

127. James Kraska, *The Law of the Sea Convention and the Northwest Passage*, 22 INT'L J. MARINE & COAST L. 257, 265 (2007).

128. Michael Byers & Suzanne Lalonde, *Who controls the Northwest?*, 52 VAND. J. TRANSNAT'L 1133, 1148 (2009).

extended its territorial sea from three to twelve nm and created a one hundred nm pollution prevention zone in its Arctic Waters under the *Arctic Waters Pollution Act*.[129]

However, nearly five decades after the voyage of the *SS Manhattan*, the prospect of an ice-free Arctic is plausible. According to the Intergovernmental Panel on Climate Change (IPCC), the "[l]oss of summer sea ice will bring an increasingly navigable Northwest Passage."[130] However, what impact will the melting Artic ice have upon the legal status of the Northwest Passage? When the Northwest Passage becomes accessible to ice-free shipping, a key question is whether the United States' position—that it is a strait used for international navigation—will prevail.[131] In other words, will it transform into a strait that connects one part of the high seas or exclusive economic zone to another part of the high seas or exclusive economic zone and thereby subject to the transit regime? If so, what implications would this have for the protection of these ecologically sensitive waters from inevitable risks such as operational and accidental pollution created by international shipping? If the transit passage regime were to apply, the only available framework would be the limited measures in article 41 for the designation of sea lanes or establishment of traffic separation schemes with the permission of the IMO.[132] Furthermore, Canada would be limited to adopting laws and regulations that give effect to applicable international regulations regarding the discharge of oil, oily wastes, and other noxious substances in the strait (i.e. MARPOL Annex I), which is a far cry from the stringent provisions of the *Arctic Waters Pollution Act*.

Some resolution may have been found with the adoption by the IMO of the International Code for Ships Operating in Polar Waters (Polar Code), which went into effect on January 1, 2017.[133] The Polar Code establishes mandatory standards for ships.[134] For example, the Polar Code imposes specific ship construction, design, and equipment conditions that require ships intending to operate in certain areas of the Antarctic and Arctic to apply for a Polar Ship Certificate.[135] It also prohibits all discharge of oil or oily mixtures and noxious

129. I*d*. at 1148–52; Douglas M. Johnston, *The Northwest Passage Revisited*, 33 OCEAN DEV. & INT'L L. 145, 149 (2002).

130. O.A. Anisimov et al., *2007: Polar Regions (Arctic And Antarctic)*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 676 (M.L. Parry et al. eds., 2007). *See also* THE ARCTIC COUNCIL, ARCTIC MARINE SHIPPING ASSESSMENT 2009 REPORT 25, *available at* https://www.pmel.noaa.gov/arctic-zone/detect/documents/AMSA_2009_Report_2nd_print.pdf.

131. *See generally* Kraska, *The Law of the Sea Convention and the Northwest Passage*, *supra* note 127; Suzanne Lalonde and Frédéric Lasserre, *The Position of the United States on the Northwest Passage: Is the Fear of Creating a Precedent Warranted?* 44 OCEAN DEV. & INT'L L. 28, 29–30 (2013).

132. *See* U.N. Convention on the Law of the Sea, *supra* note 3, at art. 41.

133. IMO, International Code for Ships Operating in Polar Waters (Polar Code), Doc. MEPC 68/21/Add.1 (2014).

134. *See id.* at Part I-A.

135. *Id.* at Part I-A, Section1.3.

liquid substances into the sea and limits disposal of garbage classified as nonharmful to "when the ship is as far as practicable from areas of ice concentration exceeding one tenth of a nautical mile, but in any case not less than twelve nautical miles from the nearest land, nearest ice-shelf, or nearest fast ice."[136]

The Polar Code applies to both national waters and international waters of the Arctic, which avoids the problem of determining whether the Northwest Passage constitutes the internal waters of Canada or are straits subject to the transit passage regime. The Polar Code is an important step in ensuring that all shipping in the Arctic will be subject to high standards. However, the legal question remains unresolved for now concerning whether Canada will be able to maintain its position that the Northwest Passage is an internal waterway of Canada. If so, it can continue to apply its strict national laws for protection of the marine environment. However, if the melting sea-ice transforms the Northwest Passage into a strait that meets the definition of article 37 for transit passage, Canada will have difficulty in maintaining this position.

D. Chokepoints and Security

Several straits lie in regions that are prone to security threats, such as piracy, armed robbery, and terrorism, all of which create both physical and economical risks to safe shipping. In addition, political tensions and regional conflicts also pose serious threats to global shipping and in particular to oil supply. The Malacca and Singapore Straits are two of the most critical straits for global shipping and in particular for oil transport. Some 40 percent of world trade and 50 percent of crude oil is transported through them.[137] Japan is one of the largest users of the straits with 60 percent of its oil transported through them.[138]

136. *Id*. at Part II-A, Section 5.2.1.1. *See also* David L. Vanderzwaag, *Governance of the Arctic Ocean beyond National Jurisdiction: Cooperative Currents, Restless Sea*, *in* OCEAN LAW DEBATES: THE 50-YEAR LEGACY AND EMERGING ISSUES FOR THE YEARS AHEAD 406 (Harry N. Scheiber et al. eds., 2018).

137. U.S. ENERGY INFORMATION ADMINISTRATION, WORLD OIL TRANSIT CHOKEPOINTS 6–7, July 25, 2017, https://www.eia.gov/beta/international/analysis_includes/special_topics/World_Oil_Transit_Chokepoints/wotc.pdf; *see also* Hoshua H. Ho, *Enhancing Safety, Security, and Environmental Protection of the Straits of Malacca and Singapore: The Cooperative Mechanism?*, 40 OCEAN DEV. & INT'L L. 233, 233 (2009).

138. *See* John Mauldin, *2 Choke Points That Threaten Oil Trade Between the Persian Gulf And East Asia*, FORBES (Apr. 17, 2017), https://www.forbes.com/sites/johnmauldin/2017/04/17/2-choke-points-that-threaten-oil-trade-between-persian-gulf-and-east-asia/#6c2450024b96.

Since the 1990s, piracy[139] and armed robbery[140] have posed major security threats in the Malacca and Singapore Straits. Following the September 11, 2001 attack in the United States, concerns arose over possible terror attacks against shipping in the straits by Islamic extremist groups in the Southeast Asian region, which took place in Jakarta and Bali between 2002 and 2005.[141] While terrorism attacks against shipping in the Malacca and Singapore Straits have not occurred, piracy continues to be a major problem.

Piracy has been recognized in international law since the earliest times as an exception to the traditional freedom of navigation in the high seas, which has been codified in the 1958 Geneva Convention on the High Seas[142] and UNCLOS.[143] UNCLOS requires that States cooperate in the repression of piracy in the high seas or other areas beyond national jurisdiction.[144] There is no similar requirement of cooperation for straits used for international navigation for repression of terrorism or armed robbery. Indeed, the issue of cooperation in straits used for international navigation came up in relation to the overall costs the State bordering a strait bears in maintaining navigational safety and protection of the environment.[145] Article 43 of UNCLOS was adopted to address the concerns of States bordering straits by providing for a cooperative mechanism.[146] Article 43 provides that the ''user'' States of straits used in international navigation under Part III should cooperate in establishing and maintaining navigational and safety aids and in the prevention, reduction, and control of pollution.[147] Article 43 grew out of initial proposals by States

139. *See generally* ROBERT BECKMAN & ASHLEY ROACH (EDS.), PIRACY AND INTERNATIONAL MARITIME CRIMES IN ASEAN: PROSPECTS FOR COOPERATION 119–33 (2012); JAMES KRASKA, CONTEMPORARY MARITIME PIRACY, INTERNATIONAL LAW, STRATEGY, AND DIPLOMACY AT SEA 41–45 (2011); Mary George, *Security, Piracy and Terrorism in the Straits of Malacca and Singapore*, *in* NAVIGATING STRAITS, *supra* note 1, at 299–324.

140. Armed robbery is defined by IMO Assembly Resolution A. 1025 (26) on the Code of Practice for the Investigation of Crimes of Piracy and Armed Robbery Against Ships as:

> 1. any illegal act of violence or detention or any act of depredation, or threat thereof, other than an act of piracy, committed for private ends and directed against a ship or against persons or property on board such a ship, within a State's internal waters, archipelagic waters and territorial sea; 2. any act of inciting or of intentionally facilitating an act described above.

141. Hoshua, *supra* note 137, at 234.

142. Arts. 15–22, 450 U.N.T.S. 11, (Apr. 29, 1958).

143. U.N. Convention on the Law of the Sea, *supra* note 3, at arts. 17–33, 100–05.

144. *Id.* at art. 100.

145. S. N. Nandan & D. H. Anderson, *Straits Used for International Navigation: A Commentary on Part III of the United Nations Convention on the Law of the Sea 1982*, 60 BRITISH Y.B. OF INT'L L. 159, 193–94 (1990); David H. Anderson, *Funding and Managing International Partnerships for the Malacca and Singapore Straits, Consonant with Article 43 of the UN Convention on the Law of the Sea*, 3 SING. J. INT'L & COMP. L. 444, 444–47 (1999).

146. SATYA NANDAN & SHABTAI ROSENNE, UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: A COMMENTARY, VOL. II 380–83 (1993).

147. Article 43 provides that User States and States bordering a strait should by agreement cooperate: (a) in the establishment and maintenance in a strait of necessary navigational and safety aids

bordering straits during UNCLOS III that they be able to be compensated for works undertaken to facilitate passage.[148] However, no mention was made to security issues, but only to safety of navigation and protection of the environment.

Cooperation in the Malacca and Singapore Straits among the three coastal States (Singapore, Malaysia, and Indonesia) for safety of navigation dates back to the 1970s.[149] However, in 2007 an agreement for a cooperative mechanism for the Malacca and Singapore Straits between the littoral States (State bordering a strait) and user States was officially launched.[150] It is the only mechanism to date implementing article 43 of UNCLOS.[151] Consequently, the measures taken under the cooperative mechanism are only for safety of navigation and protection of the marine environment.[152]

Instead, security measures for the Malacca and Singapore Straits have been adopted outside the context of UNCLOS and at the regional levels. The Association of Southeast Asian Nations (ASEAN) has provided the main forum and framework for adopting cooperative measures.[153] ASEAN is a regional intergovernmental organization comprised of ten Southeast Asian States. It seeks to promote economic, social, cultural, and security cooperation.[154] ASEAN has played an important role for addressing security issues in the Malacca and Singapore Straits.[155] Measures taken include, for example, the adoption of the 2002 Agreement on Information Exchange and Establishment of Communication Procedures applying to *inter alia* crimes such as terrorism and

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or other improvements in aid of international navigation; and (b) for the prevention, reduction and control of pollution from ships. U.N. Convention on the Law of the Sea, *supra* note 3, at art. 43.

148. The Law of the Sea Straits Used for International Navigation, Legislative History of Part III of the United Nations Convention on the Law of the Sea, vol. 1, 78, Draft art. 11(3) (1992). *See* Nilufer Oral, *Straits Used in International Navigation, User Fees and Article 43 of the 1982 Law of the Sea Convention*, 20 OCEAN Y.B. 561, 567–68 (2006). *See generally*, Bernard Oxman, *Observations on the Interpretation and Application of Article 43 of UNCLOS with Particular Reference to the Straits of Malacca and Singapore*, 2 SING. J. INT'L & COMP. L. 408 (1998) (discussion of the process).

149. Robert Beckman & Sun Zhen, *The Cooperative Mechanism for the Straits of Malacca and Singapore*, *in* GOVERNANCE OF ARCTIC SHIPPING: BALANCING RIGHTS AND INTERESTS OF ARCTIC STATES AND USER STATES 380, 381–412 (Robert C. Beckman et al. eds., 2017).

150. Takashi Ichioka, *Cooperation in the Straits of Malacca and Singapore*, *in* NAVIGATING STRAITS, *supra* note 1, at 345–49.

151. Hoshua, *supra* note 137, at 240–43.

152. *See* U.N. Convention on the Law of the Sea, *supra* note 3, at art. 43.

153. Mary George, *Security, Piracy and Terrorism in the Straits of Malacca and Singapore*, in NAVIGATING STRAITS, *supra* note 1, at 300.

154. *See* ASEAN, *About ASEAN*, https://asean.org/asean/about-asean/.

155. BECKMAN & ROACH, *supra* note 139, at 139–40.

piracy at sea,[156] and the Malacca Strait Patrols and "Eyes-in-the-Sky" air patrol arrangement among Indonesia, Malaysia, Singapore, and Thailand.[157]

The Bab al-Mandab Strait is another strait where security is of great importance and where questions as to the applicability of UNCLOS come up due to the current conflict in Yemen. The effects of the conflict spills over into this strait with risks to the security of shipping.[158] The strait is bordered in the northeast by Yemen and to the southwest by Eritrea and Djibouti. It is a crucial link in the maritime trade route linking the Mediterranean to the Indian Ocean by way of the Suez Canal and Red Sea and is a recognized chokepoint for oil transport.[159] The Bab al Mandab Strait has a history of piracy, and the current conflict in Yemen is impacting shipping. For example, as a result of the Houthi rebel attacks against two of its tankers on July 25, 2018, Saudi Arabia temporarily halted all oil shipments.[160] These were eventually resumed after protective measures were taken.[161]

Piracy is expressly addressed under UNCLOS. However, attacks by other nonstate actors, such as terrorists, are not addressed under UNCLOS. It is a gap which became more evident after the terror attack in 1985 in the high seas of the Mediterranean Sea against the *Achille Lauro* cruise ship. [162] To remedy this gap, in 1988 the IMO adopted the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation.[163] And following the September 11, 2001 Al Qaeda attacks against the United States, the IMO adopted the International Ship and Port Facility Security Code.[164] This Code specifically seeks to enhance security measures in ports and on ships.[165] These measures showed the important role of the IMO in addressing security threats to shipping that are not addressed expressly under UNCLOS.

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156. ASEAN, *Agreement of Information Exchange and Establishment of Communication Procedures*, Art. III, http://www.asean.org/archive/17346.pdf.

157. *See* Ralph Emmers, *The Role of the Five Power Defence Arrangements in the Southeast Asian Security Architecture* 17 (Rajaratnam School Of International Studies, Working Paper No. 195, 2010), http://www.rsis.edu.sg/publications/WorkingPapers/WP195.pdf.

158. Clive Schofield, *Securing the World's Most Dangerous Strait? The Bab-Al Mandeb And Gulf of Aden*, *in* NAVIGATING STRAITS, *supra* note 1, at 273–74.

159. *Id.* at 270–71.

160. *Saudi Arabia suspends oil exports through Bab al-Mandeb*, AL JAZEERA (July 25, 2018), https://www.aljazeera.com/news/2018/07/saudi-arabia-suspends-oil-exports-bab-el-mandeb-180725215417388.html.

161. *Id*.

162. M. Halberstam, *Terrorism on the high seas: the Achille Lauro, Piracy and the IMO convention on maritime safety*, AM. J. INT'L L. 269, 269–70 (1988).

163. NATALIE KLEIN, MARITIME SECURITY AND THE LAW OF THE SEA 151–54 (2011); Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, Mar. 3, 1988, 1678 U.N.T.S. 201.

164. Amendment to the Safety of Life at Sea (SOLAS) Convention (1974/1988) Ch. XI-2.

165. *See* Nilufer Oral, *Terror at Sea: Detection and Prevention – The New International Ship and Port Facility Security Code and the Amended SOLAS Chapter XI-2*, *in* RECENT DEVELOPMENTS IN THE LAW OF THE SEA AND CHINA 335 (Kuen Fu et al. eds., 2006).

Another example where security threats pose threats to shipping in straits used for international navigation is the Hormuz Strait, which is bordered by Iran and Oman. The Strait of Hormuz is listed by the U.S. Energy Information Administration as one of the most important oil chokepoints in the world with some 18.5 million b/d passing in 2016.[166] During the Iran-Iraq war, Iran had closed the strait to international shipping, which was received with protests by the international community.[167] In 2012 Iran had threatened to prevent the passage of foreign shipping through the Hormuz Strait in response to the imposition of economic sanctions.[168] And again in 2018 in the aftermath of the United States withdrawing from the Iran-United States Nuclear Agreement and threatening to halt Iran imports of oil, Iran once again threatened closure of the Strait of Hormuz.[169] The threat by Iran in 2018 to close the Strait of Hormuz raised the possibility of the UN Security Council adopting a decision to take military action and intervene against Iran.[170] On April 23, 2019, Iran once again threatened to close the Strait of Hormuz if it is prevented from transporting its oil, following the U.S. announcement lifting exemptions to certain countries that buy oil from Iran.[171]

CONCLUSION

Straits used for international navigation are vital links in the great global maritime highway providing "short cuts" for global shipping that save valuable time and money. Centuries ago jurists recognized the importance of free access through straits. It is not surprising that a schism should arise between the interest of the States bordering straits and those of shipping States, the former wishing to control passage and the latter wishing for unimpeded passage. This schism grew over the centuries especially as the "*near-far clash of interests*" emerged in the twentieth century and presented an important challenge for international law to address.

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166. *See* U.S. ENERGY INFORMATION ADMINISTRATION, WORLD OIL TRANSIT CHOKEPOINTS, OVERVIEW (2017), https://www.eia.gov/beta/international/regions-topics.php?RegionTopicID=WOTC.

167. Wolff Heintschel von Heinegg, *Law of Naval Warfare and International Straits*, 71 INT'L L. STUD. 263, 265–66 (1998).

168. *See* Nilufer Oral, *Transit Passage Rights in the Strait of Hormuz and Iran's Threats to Block the Passage of Oil Tankers*, 16 AM. SOCIETY OF INT'L L. INSIGHTS (May 3, 2012), https://www.asil.org/insights/volume/16/issue/16/transit-passage-rights-strait-hormuz-and-iran%E2%80%99s-threats-block-passage.

169. Saeed Kamali Dehghan, *Iran threatens to block Strait of Hormuz over US oil sanctions*. THE GUARDIAN (Jul. 5, 2018), https://www.theguardian.com/world/2018/jul/05/iran-retaliate-us-oil-threats-eu-visit-hassan-rouhani-trump.

170. *UNSC Might Authorize Military Action If Iran Closes Strait of Hormuz*, SPUTNIK (Aug. 28, 2018), https://sputniknews.com/middleeast/201808281067526760-iran-strait-hormuz/.

171. Ahmad Ghaddar, *FACTBOX-Strait of Hormuz: the world's most important oil artery,* REUTERS (Apr. 23, 2019),
https://www.reuters.com/article/usa-iran-oil-strait/factbox-strait-of-hormuz-the-worlds-most-important-oil-artery-idUSL5N2254EM.

This challenge was taken up in the historic UNCLOS III negotiation process. The UNCLOS is a remarkable Convention negotiated over a period of almost a decade. One of its crowning achievements was Part III, which established a detailed regime for straits used for international law, including a new regime for transit passage within the meaning provided under article 37.[172] It also preserved the regime of nonsuspendable innocent passage for other straits.[173] The key issues that dominated the negotiations of the straits regime in UNCLOS were the competing interests of the States bordering straits for protection of their marine environment and that of the maritime States, in particular the naval powers intent to preserve unimpeded passage for warships and especially submarines.[174] Part III sought to balance these interests as States bordering straits were given some regulatory powers to designate sea lanes and establish traffic separation schemes with the approval of the IMO as well as to adopt laws and regulations to prevent the discharge of oily substances and other noxious substances from ships.[175] In return, foreign shipping was entitled to unimpeded passage through straits subject to the transit passage.[176] While UNCLOS introduced new concepts and measures for straits used for international navigation, it was an instrument shaped by the concerns of its time. Adopted in 1982, the years to follow revealed new challenges and dormant difficulties awakened. For example, the question whether mandatory pilotage violates transit passage emerged as an issue at the IMO with the joint request made by Australia and Papua New Guinea for protections for the Great Barrier Reef.

Other challenges of concern to straits are threats to the security of shipping from piracy, armed robbery, and terrorism. The UNCLOS only addresses piracy and is silent on other security threats. However, in relation to straits, threat to shipping in the Straits of Malacca and Singapore emerged in the 1990s. And while UNCLOS mandates cooperation of States to combat piracy in the high seas, it is silent in regard to straits used for international navigation and in particular where transit passage applies. Article 43 of UNCLOS provides a framework for a cooperative mechanism between littoral States and user States of straits to help the former bear the costs of maintenance of the straits. However, it does not apply to security matters. Whereas, the measures undertaken by the States bordering straits for security purposes come with high costs. This remains somewhat of a gap.

The existing regime of straits is the result of nearly a century of negotiations. And as briefly outlined in this Article, the subject matter of straits

172. U.N. Convention on the Law of the Sea, *supra* note 3.
173. *Id.* at art. 45(2).
174. *See* Kraska, *supra* note 45, at 208–13.
175. U.N. Convention on the Law of the Sea, *supra* note 3, at arts. 21–22.
176. *See* Caron, *The Great Straits Debate*, *supra* note 1, at 19–20.

used in international navigation continues to be a dynamic area of international law. There are still many issues that need to be addressed. What remains unclear is to what extent these can be addressed under UNCLOS.