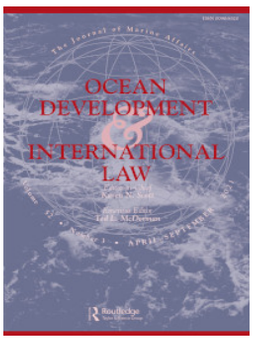

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The 'Due Regard' of Article 234 of UNCLOS: Lessons From Regulating Innocent Passage in the Territorial Sea

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ABSTRACT

Article 234 of UNCLOS is in many ways exceptional, but it is not unique in the sense that it grants to the coastal state "complete" legislative power. Arguably, "complete" coastal state jurisdiction exists in the territorial sea for the purposes enumerated in Article 21(1), allowing coastal states to adopt ship reporting systems, pilotage, and other routing measures unilaterally. The analysis of state practice reveals that states often decide to engage the International Maritime Organization (IMO) in different ways, even when such a course of action is not mandatory. This article advocates for meaningful deliberation as both a suitable method of meeting Article 234's due regard standard, and a practice that can be expected from a steward.

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Introduction

In the 2008 Ilulissat Declaration, the five Arctic coastal states emphasized their unique position as stewards to protect the ecosystem of the Arctic Ocean.[1] The narrative of stewardship has become very attractive in ocean governance discourse in recent years.[2] It evokes connotations of moral responsibility for the holistic and eternal well-being of the public good it represents, but it may also be used to mask or strengthen claims to power under the veil of ethical grounds. Responsibility to protect and preserve the unique Arctic marine environment and ecosystems has, for example, been invoked by Russian officials[3] and academics to justify the application of a national system of shipping control in the Northern Sea Route (NSR) now,[4] and in the future, regardless of

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[1] Ilulissat Declaration, Arctic Ocean Conference of 28 May 2008 (2009) 48 *International Legal Materials* 362.

[2] See, for example, the call upon states to act as stewards of the ocean in areas beyond national jurisdiction on behalf of present and future generations in the UN, Revised Draft Text of an Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction. UN Doc. A/CONF.232/2020/3 (18 November 2019).

[3] Viktor Olersky, Deputy Minister of Transport of the Russian Federation, "The application of the Polar Code in the Russian Federation" presented at the International Conference on Harmonized implementation of the Polar Code, 22 February 2018, Helsinki, Finland.

[4] For example, I. Mikhina, "Sovremennye Problemy Mezhdunarodno-pravovoi Zashity Vod Arktiki [Modern Issues of International Legal Protection of Arctic Waters]" in R. A. Kolodkin and S. M. Punzhin (eds), *Mezhdunarodnoe Morskoe Pravo: Statii Pamyati A. L. Kolodkina* (Statut, 2014), 264.

the effects of climate change on the presence of ice in the region.[5] This line of thought is compelling, at least at face value. It is expected that melting sea ice will not result in safer navigational conditions, and that it may increase the vulnerability of Arctic ecosystems.[6] It is, moreover, plausible that "the end of the national legal regimes based on Article 234 of the UNCLOS, and the acceptance of navigation in the Arctic based on lower common standards, could lead to serious, irrevocable consequences for the Arctic environment."[7]

On the other hand, is it not problematic to assert that "it is in every Arctic nation's and other countries' interest to retain existing national regulations within the Arctic legal regimes based on Article 234 of the LOSC at the present stage and into the future"?[8] This line of reasoning resembles the position articulated by the Chief of the General Staff of the Armed Forces of the Russian Federation Valery Gerasimov that "our Armed Forces can fully ensure the safety of navigation in the waters of the Northern Sea Route, and therefore there is no need to find warships of other countries in this sea corridor."[9] The undertone of this narrative is oriented toward maximizing exclusive coastal state authority at the expense of the inclusive interest of the international community in the freedom of navigation.[10] In principle, exclusive claims to ocean space tend to limit the participation in decision making by other states, whereas inclusive claims promote concurrent participation.

Does the end justify the means? Does the objective of protecting and preserving fragile Arctic ecosystems justify the absolute unilateralism of Article 234[11] of the United Nations Convention on the Law of the Sea (UNCLOS)?[12] And should we presume that a unilateral course of action must lead to better protection than the diluted common denominator of internationally agreed rules and standards, such as those adopted by the International Maritime Organization (IMO)? After all, can we trust Russia to act as a better steward of Arctic ecosystems than the IMO, given that much of the dilution of

[5] V. Gavrilov, R. Dremliuga, and R. Nurimbetov, "Article 234 of the 1982 United Nations Convention on the Law of the Sea and Reduction of Ice Cover in the Arctic Ocean" (2019) 106 *Marine Policy* 5.

[6] R. Dremliuga, "A Note on the Application of Article 234 of the Law of the Sea Convention in Light of Climate Change: Views from Russia" (2017) 48 *Ocean Development and International Law* 128, 132.

[7] Ibid, 133.

[8] Gavrilov, Dremliuga, and Nurimbetov, note 5, 5.

[9] O. Vozhyeva, "Eksperty otsenili vozmozhnost' voyennogo konflikta v Arktike" 18 December 2019, *MKRU* at: https://www.mk.ru/politics/2019/12/18/eksperty-ocenili-vozmozhnost-voennogo-konflikta-v-arktike.html (accessed 3 May 2021).

[10] As explained in M. S. McDougal and W. T. Burke, "The Community Interest in a Narrow Territorial Sea: Inclusive Versus Exclusive Competence over the Oceans" (1960) 45 *Cornell Law Review* 171, 173–174, "States have traditionally made claims against each other for authority […] of many differing degrees of exclusiveness and inclusiveness." As an example, the exclusive interest finds manifestation in a claim to internal waters, and the inclusive interest in the preservation of the high seas freedoms.

[11] Article 234 stipulates: "Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction, and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence."

[12] United Nations Convention on the Law of the Sea, adopted 10 December 1982, entered into force 16 November 1994, 1833 UNTS 3.

the Polar Code's[13] environmental part can be attributed precisely to Russia's resistance to more stringent regulation?[14]

The protection and preservation of the Arctic environment is not the only end worth pursuing. There is also value in the ideal of including those affected by decisions in the decision-making process. To this end, this article argues that it is in the interest of every nation for the regulation of shipping in the Arctic to be less a prerogative of individual coastal states, and more a result of meaningful deliberation and the exchange of reasoned arguments preceding decision making.[15] This proposition is based on the observation that although the exercise of Article 234 legislative powers does not involve any explicit external review mechanism, it nevertheless affects other stakeholders' rights.

Precisely to safeguard these rights and prevent arbitrariness in the application of Article 234, the laws and regulations adopted for ice-covered areas must be nondiscriminatory and have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence. Although admittedly vague, the provision's "due regard" duty imposes a normative standard of reasonableness. Furthermore, Article 234 of UNCLOS is not unique in the sense that it grants to the coastal state complete legislative power. Arguably, similarly complete coastal state jurisdiction exists in the territorial sea for the purposes enumerated in Article 21(1). Bearing in mind that Article 234 is an integral part of UNCLOS, and its interpretation should be coherent with the rest of the Convention, lessons can be drawn from investigating how the law of the sea reconciles sovereignty in the territorial sea with innocent passage. In essence, the jurisdictional balance in the territorial sea can serve as a yardstick to test the limits of reasonableness enshrined in the "due regard" formula of Article 234.

In this article, the next section deals with Article 234's due regard clause. This is followed by a discussion on the relationship between Article 234 and the regime of the territorial sea, setting the stage for approaching the substantive extent of coastal state sovereignty as a yardstick for Article 234's due regard standard. The penultimate section provides an analysis of state practice concerning the adoption of ship reporting systems, pilotage, and other routing measures for ships in lateral passage through the territorial sea. The final section provides conclusions.

The 'Due Regard' Clause Under Article 234 of UNCLOS

Article 234 allows a coastal state to prescribe and enforce laws and regulations to prevent, reduce, and control vessel-source pollution within their exclusive economic zone

[13] IMO, International Code for Ships Operating in Polar Waters (Polar Code), the text of the Polar Code is available in IMO Doc MEPC 68/21/Add.1, 5 June 2015, Annex 10, in force 1 January 2017 (Polar Code).

[14] Ch. Farand, "Loopholes in Arctic Heavy Fuel Oil Ban Defer Action to the End of the Decade" *Climate Home News* 3 September 2020 at: https://www.climatechangenews.com/2020/09/03/loopholes-arctic-heavy-fuel-oil-ban-defer-action-2029-research-finds (accessed 3 May 2021); see also D. Bognar, "Russia and the Polar Environment: The Negotiation of the Environmental Protection Measures of the Mandatory Polar Code" (2018) 27 *Review of European, Comparative & International Environmental Law* 35, for an overview of Russia's role in the negotiation over three issue areas: establishment of special areas, discharge ban of oil and oily mixtures, and reception facilities.

[15] See, generally, I. Johnstone, "Legal Deliberation and Argumentation in International Decision Making" in Hilary Charlesworth and Jean-Marc Coicaud (eds), *Fault Lines of International Legitimacy* (Cambridge University Press, 2010), 175.

(EEZ) if the cumulative conditions for applying the provision are fulfilled.[16] Unlike other articles in Section 5 of Part XII of UNCLOS, Article 234 does not refer to international standards or a competent international organization, such as the IMO, an otherwise critical element of "checks and balances" to, inter alia, coastal state jurisdiction over navigation. Instead, the laws and regulations adopted for ice-covered areas must be nondiscriminatory and have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence. This normative standard offers one of the few explicit limits on the exercise of jurisdiction under Article 234, although its specific meaning is far from clear.[17]

A prudent interpretation of the standard of due regard is to require the coastal state to accommodate both concerns—freedom of navigation and the protection and preservation of the marine environment—and draw an appropriate balance between them. Reconciling the two will likely lead to an impairment of navigational rights of other states, but any such impairment should be justified by the need to protect and preserve the marine environment, and any argument to this end should be supported by the best available scientific evidence. When interpreting or applying Article 234, most commentators accentuate the words "due regard to navigation."[18] Likewise, when other states raise concerns about the legality of Canada's or Russia's implementation of Article 234, questions are often posed as to what extent those specific measures reflect due regard to navigation.[19] This is understandable, as the requirement to pay due regard to navigation seems to be one of a few explicit limits on coastal state jurisdiction under Article 234.

Importantly, Article 234 refers to "best available scientific evidence" in the context of protection and preservation of the marine environment. As such, the coastal state is under a duty to make sure that it has access to the best scientific evidence, which implies actively conducting relevant scientific research or endeavoring to obtain the best scientific evidence that exists, and being able to convincingly argue that its measures are reasonable in light of this evidence. This can be achieved either by investing in state-of-the-art scientific research and/or by engagement in cooperation with other states engaged in relevant scientific research. This factor arguably elevates the role of science in the deliberations of the coastal state before it can exercise its jurisdiction under Article 234, and it may implicitly necessitate a degree of international review, at least with respect to some of the scientific findings. Thus, for example, with all the scientific work conducted surrounding the adoption of the Polar Code at the IMO, a coastal state

[16] Article 234 applies to "ice-covered areas … where particularly severe climatic conditions and the presence of ice-covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance."

[17] See, generally, E. Franckx and L. Boone, "Article 234. Ice-Covered Areas" in Alexander Proelss (ed), *United Nations Convention on the Law of the Sea, A Commentary* (C.H. Beck, Hart, Nomos, 2017), 1566.

[18] Ibid, 1578; R. Pedrozo, "Arctic Climate Change and U.S. Accession to the United Nations Convention on the Law of the Sea" (2013) 89 *International Law Studies* 757, 769; D. McRae and D. J. Goundrey, "Environmental Jurisdiction in Arctic Waters: The Extent of Article 234" (1982) 16 *University of British Columbia Law Review* 197, 220.

[19] USA, "Diplomatic Note from the US Embassy, Ottawa, Canada to Department of Foreign Affairs and International Trade of Canada" (18 August 2010) at: https://2009-2017.state.gov/documents/organization/179287.pdf (accessed 3 May 2021); USA, "Diplomatic Note from the United States to Russia regarding the NSR" (29 May 2015) reproduced in CarrieLyn D. Guymon (ed), *Digest of United States Practice in International Law 2015*, 526 at: https://2009-2017.state.gov/documents/organization/258206.pdf (accessed 3 May 2021); Statement by the Delegation of Singapore in Annex 28 of IMO Doc. MSC 88/26, 15 December 2010.

would have to be able either to use the scientific evidence presented there in its favor or to rebuff it convincingly.

From a functional perspective, the "due regard" clause serves a similar role to the requirement under other provisions of UNCLOS that coastal state measures relating to navigation conform to international standards or are submitted to the competent international organization (the IMO) for approval. For example, the exercise of coastal state jurisdiction regarding vessel-source pollution in the EEZ is conditioned by specific reference to international standards (Article 211(5)) that can be surpassed only in close cooperation with the IMO (Article 211(6)). The purpose of this mechanism is to prevent arbitrariness in selecting "special areas" and "special" mandatory measures for the regulation of vessel-source pollution. The main difference between Article 234 and Article 211 is that under Article 211(6) it is left to the members of the IMO to jointly decide whether a proposed measure is reasonable and proportionate under the circumstances. Under Article 234, such an evaluation is undertaken solely by the coastal state, subject to its international rights and obligations. The reference to "best available scientific evidence" qualifies the arbitrariness of any measure, as it requires the coastal state to determine what course of action is reasonable and proportionate under any given circumstances in light of the best scientific evidence.

Article 234 of UNCLOS and the Territorial Sea

Does Article 234 of UNLCLOS Apply to the Territorial Sea?

The relationship between Article 234 of UNCLOS and the territorial sea is one of the greatest mysteries of the provision. To start with, the literal interpretation of the phrase used to describe Article 234's scope of application "within the limits of the exclusive economic zone" does not encompass the territorial sea.[20] Yet, although Article 55 of the UNCLOS provides a clear definition of the EEZ as an area *beyond* and adjacent to the territorial sea, there is no full clarity as to whether "within the limits" refers to both outer and inner limits. Although, on the one hand, the plural form of the noun "limit" would support such an interpretation, on the other hand, an analysis of the systematic structure of UNCLOS reveals that the use of terminology determining the spatial scope of application of different provisions across the Convention is not entirely consistent.[21] The Convention does not consistently use the singular form of the noun "limit" to denote a single limit of a maritime zone of one state and the plural to indicate both the inner and the outer

[20] J. A. Roach, "Arctic Navigation: Recent Developments" in M. H. Nordquist, J. Norton Moore, and R. J. Long (eds) *Challenges of the Changing Arctic: Continental Shelf, Navigation, and Fisheries* (Brill Nijhoff, 2016), 228; McRae and Goundrey, note 18, 221; A. Chircop, "The Growth of International Shipping in the Arctic: Is a Regulatory Review Timely?" (2009) 24 *International Journal of Marine and Coastal Law* 355, 371; Franckx and Boone, note 17, 1575–1576; K. Bartenstein, "The 'Arctic Exception' in the Law of the Sea Convention: A Contribution to Safer Navigation in the Northwest Passage?" (2011) 42 *Ocean Development and International Law* 22, 29–30.

[21] Of course, it is difficult to disagree with Roach, ibid, 228, who argues that the drafters of UNCLOS knew precisely how to describe waters in question. There is a degree of inconsistency in the terminology, however.

limits.[22] In addition, the use of the phrase "within the limits of (a maritime zone)" reveals inconsistency.[23]

Moreover, the practical consequence of a narrow interpretation of Article 234—excluding the territorial sea—would be the inability of a coastal state to set its own construction, design, equipment, and manning (CDEM) standards in an ice-covered territorial sea unilaterally, while it would be entitled to do so for ice-covered parts of the EEZ.[24] The purpose of Article 234 would arguably not be attainable if the coastal state does not have the power to impose more stringent or other CDEM standards than those that are generally accepted, especially considering there were no such standards at the time of the adoption of UNCLOS.

When implementing Article 234, both Canada and Russia unsurprisingly favor a broad interpretation of the provision and do not limit the spatial scope of their respective regulations to their EEZs only. Their respective regulations pursuant to Article 234 have the effect of imposing requirements relating to, inter alia, CDEM standards. The territorial sea of both Canada and Russia is surrounded by their EEZ, as is the case for all states that have adopted an EEZ. It is conceivable that most, if not all, navigation through the territorial sea will also cross the EEZ of the same state. Therefore, "special" CDEM standards, by virtue of being "static" and "continuously applicable" in practice, would apply functionally to ships entering ice-covered territorial sea regardless of whether or not Article 234 technically applies to the territorial sea.

To be sure, Article 234 cannot be applied in just *any* part of the EEZ, only "where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance." In theory, it is possible that a ship may enter the Russian or Canadian territorial sea through an area of non-ice-covered EEZ and navigate in innocent passage until it can leapfrog to another part of non-ice-covered EEZ where it can exercise the freedom of navigation. Although this is currently an implausible scenario, in large part due to the length of Russian and Canadian relevant coastlines, it cannot be precluded in the future. For example, this situation might arise if Arctic ice continues to thaw, leading to a smaller area of the EEZ that meets all the requirements of Article 234. Yet even then, given its sovereignty in the territorial sea, the coastal state may find ways to discourage such practice. It can, for instance, suspend innocent passage in certain areas in accordance with Article 25(3) or exert pressure with respect to services upon which long Arctic navigation is highly dependent. In other words, it would be

[22] Article 76(6) refers to the "outer limit of the continental shelf," but Article 76(5), (7), and (8) refers to the "outer limits" as if there is more than one "outer limit." Similarly, Article 66 refers to the "outer limits" of the EEZ. Conversely, Section 2 is entitled the "limits of the territorial sea," as it addresses both the outer and inner limit of the territorial sea. Article 4 refers only to the "outer limit of the territorial sea" in singular form.

[23] Article 111(4) includes the phrase "within the limits of the territorial sea," which in light of the definition of the territorial sea in Article 2(1) of UNCLOS (adjacent to internal and archipelagic waters), and Article 111(1), arguably means only "outer limits." Similarly, Article 257's "beyond the limits of the exclusive economic zone" makes much more sense when "limits" mean "outer limits" only.

[24] See E. J. Molenaar, "The Arctic, the Arctic Council, and the Law of the Sea" in R. C. Beckman, T. Henriksen, K. D. Kraabel et al., *Governance of Arctic Shipping: Balancing Rights and Interests of Arctic States and User States* (Brill Nijhoff, 2017), 36.

absurd if a vessel could escape more stringent EEZ regulation simply by navigating through the territorial sea of the same state.

In conclusion, it appears that at least from the perspective of the authority to regulate CDEM standards, it generally makes little practical difference whether Article 234 is applicable in the territorial sea or not. However, there is a theoretical possibility that a vessel could leapfrog between parts of non-ice-covered EEZ through the ice-covered territorial sea and evade more stringent regulations adopted under Article 234. This is a manifestly absurd or unreasonable result. Therefore, the phrase "within the limits of the EEZ" should arguably allow for the application of Article 234 in the territorial sea. Such an interpretation is consistent with the ordinary meaning of the phrase in its context, and it finds support in the analysis of the preparatory works and the circumstances of the conclusion of UNCLOS.[25] In addition, this broader, teleological interpretation of Article 234 finds support in the state practice of not only Canada and Russia but also the United States.[26] Moreover, there is no publicly available evidence to suggest that other states have protested against a broad interpretation of the geographical scope of Article 234 to include the territorial sea.

Nevertheless, even on a broad interpretation of Article 234, UNCLOS does not explicitly settle the relationship between Article 234 and the territorial sea regime, including the right of innocent passage. Quite the opposite; if Article 234 applies in the territorial sea, it clearly has a "compatibility issue" with Article 21(2).[27] The ambiguous articulation of the geographic scope of Article 234 may in fact result from the view that the powers of the coastal state to protect and preserve the marine environment in its territorial sea are sufficient, and thus there is no need to derogate from them in respect of ice-covered areas. Therefore, the substantive scope of coastal state jurisdiction in the territorial sea can provide a reference point to assess the reasonableness of different measures.

Potential Implications of the Substantive Extent of Coastal State Jurisdiction in the Territorial Sea for Article 234 of UNCLOS

The negotiations of Article 234 of UNCLOS reveal that there were no disagreements over or even discussion of the application of the "Arctic clause" (Article 234) in the territorial sea.[28] Since Canada, the USSR, and the United States appear to have assumed that the clause would apply in the EEZ *and* the territorial sea, why does the text of Article 234 not reflect this understanding more clearly? Assuming that the incongruence between the wording of Article 234 and the understanding of the negotiators for the spatial scope of application of the provision was intentional, that is, it was not a result of an error or oversight, one can infer that an express application of the "Arctic clause" to the territorial sea was deemed unnecessary. The most reasonable explanation for this is that these states did not wish to explicitly amend the jurisdictional balance achieved

[25] J. Solski, "The Genesis of Article 234 of the UNCLOS" (2021) 52 *Ocean Development and International Law* 1, 19.

[26] Ibid.

[27] A. Chircop, "Jurisdiction Over Ice-Covered Areas and the Polar Code: An Emerging Symbiotic Relationship?" (2016) 22 *Journal of International Maritime Law* 275, 280.

[28] Solski, note 25.

for the territorial sea, while accepting the situation that "special" measures could apply functionally in *all* ice-covered maritime zones under coastal state jurisdiction.

The jurisdiction of a coastal state in its territorial sea, complemented by an extended jurisdiction in ice-covered parts of the EEZ,[29] would presumably have been viewed as adequate to meet the objectives of Canada and the USSR.[30] Once the "Arctic clause" allowed for substantial derogation from the jurisdictional equilibrium contemplated for the EEZ and straits,[31] there was no necessity for a similar express approach for the territorial sea. Under the assumption that Article 234 allows for unilateral regulation of CDEM standards, ships navigating ice-covered territorial sea would need to comply with them in practice as well. Following this line of thought, Article 234 would functionally apply in the territorial sea, without unnecessarily and expressly overriding and upsetting the jurisdictional balance achieved for the territorial sea under UNCLOS.

McRae and Goundrey argue that the limits of reasonableness, enshrined in the "due regard" formula, may be defined by reference to standards applicable to the territorial sea.[32] As such, Article 234, at least in principle, would not confer more extensive powers than those available to the coastal state in its territorial sea. As a result, the regime of innocent passage is generally untouched[33] and the obligation not to hamper innocent passage can arguably still form an essential limitation to coastal state powers under Article 234.

Between Cooperative and Complete Legislative Competence: Relevant State Practice in the Exercise of Sovereignty in the Territorial Sea

In the territorial sea—a maritime zone subject to, in principle, exclusive and complete sovereignty—UNCLOS reconciles the exclusive coastal state interest with the inclusive interest of the international community in navigation through different mechanisms. The interplay between the coastal state and the IMO ranges from "cooperative legisla-

[29] That the "normal" substantive extent of coastal state jurisdiction over the territorial sea was clearly insufficient to support the 1970 AWPPA (Canada, Arctic Waters Pollution Prevention Act, Revised Statuses of Canada 1985, c. A-12, as amended) was clear from the Canadian attempts at the 1973 IMO Conference; see Solski, note 25, 7–10.

[30] E. G. Lee, "Canadian Practice in International Law During 1973 as Reflected Mainly in Public Correspondence and Statements of the Department of External Affairs" (1974) 13 *Canadian Yearbook of International Law* 272, 283, refers to the letter from the Canadian Department of External Affairs, dated 25 July 1973, describing Canadian positions on main issues for the UNCLOS III. With respect to the territorial sea, "Canada has maintained that the right of innocent passage should be so interpreted as enabling coastal States to impose environmental controls on passage." With respect to marine pollution, the letter refers to AWPPA 1970 and the Canadian concern for "safeguards and controls" of special scope that are not likely to be covered by internationally agreed standards of universal application. This question, as the letter goes, affects not only areas of high seas, which may come under coastal state jurisdiction, but also the territorial sea and straits.

[31] Article 234 obviously elevates the substantive extent of coastal state jurisdiction in the EEZ. Although UNCLOS does not stipulate this explicitly, and this article does not discuss this issue, Article 234 applies also within straits used for international navigation. D. Pharand, "The Arctic Waters and the Northwest Passage: A Final Revisit" (2007) 38 *Ocean Development and International Law* 3, 46–47, provides a convincing argument to that end.

[32] McRae and Goundrey note 18, 221–222.

[33] The interpretation offered by McRae and Goundrey note 18, 224, points in that direction.

tive competence,"[34] through expressly limited coastal state jurisdiction by the rule of reference,[35] to complete legislative competence.[36]

As set out in Article 24(1) of UNCLOS, the general duty of the coastal state is to not hamper the innocent passage of foreign ships through the territorial sea except in accordance with UNCLOS and to refrain from imposing requirements that have the practical effect of denying or impairing the right of innocent passage.

A coastal state has a right to adopt laws and regulations relating to innocent passage for a whole range of issues, as specified in Article 21(1) of the Convention. For the purposes of this article, it is relevant to emphasize Article 21(1)(a) and (f), which refers to "the safety of navigation and the regulation of maritime traffic" and "the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof," respectively.

UNCLOS, in Article 21(2), expressly limits legislative competence of a coastal state to adopt CDEM standards but leaves a shadow of a doubt over other measures. This triggers a question: How complete is the jurisdiction of the coastal state to adopt navigational measures, such as ship reporting systems (SRS), pilotage, and other routing measures for ships in innocent passage through the territorial sea?

Ship Reporting Systems (SRS)

The SOLAS-based legal regime for ship reporting is well developed and, apparently, exclusive.[37] The regime not only grants state parties a right to adopt an SRS, but it can be assumed that it limits states' discretion to adopt an SRS outside of the regime. SOLAS Regulation V/11 and associated instruments aim to regulate the scope of SRSs and provide for some level of uniformity and predictability of the legal regime. When adopted according to the procedure set out in SOLAS, the binding force of a mandatory SRS is derived from SOLAS. The key wording in that regard is included in SOLAS Regulation V/11.1, which stipulates that

> A ship reporting system, when adopted and implemented in accordance with the guidelines and criteria developed by the Organization**pursuant to this regulation, shall be used by all ships, or certain categories of ships or ships carrying certain cargoes in accordance with the provisions of each system so adopted.

However, SOLAS Regulation V/11.4 recognizes the possibility of an SRS that is "not submitted to the Organization for adoption." The regulation encourages states

[34] Such as the joint competence to designate sea lanes and traffic separation schemes in straits used for international navigation, see E. J. Molenaar, "Options for Regional Regulation of Merchant Shipping Outside IMO, with Particular Reference to the Arctic Region" (2014) 45 *Ocean Development and International Law* 272, 282–283.

[35] Such as Article 21(2) of UNCLOS, which introduces a specific limitation on the substantive scope of laws and regulations of the coastal state relating to innocent passage, as it prohibits the state from adopting laws and regulations that impose CDEM standards unless they are giving effect to generally accepted international rules and standards (GAIRAS).

[36] Complete legislative competence of a coastal state relates to absence of any express rule of reference to international rules and standards or a competent international organization.

[37] First adopted as SOLAS Regulation V/8-1; see Annex 1 of the IMO Doc. MSC 31/63, 23 May 1994, and effective 1 January 1996. Later SOLAS Regulation V/8-1 was renamed as SOLAS Regulation V/11. It includes also SRS Guidelines and Criteria, IMO Doc. Res. MSC 43 (64), 9 December 1994 and the SRS General Principles, IMO Doc. Res. A.851 (20), 27 November 1997.

implementing such SRSs to follow the relevant guidelines and criteria, and submit such SRS to the IMO for recognition. It is not clear whether the ambit of SOLAS Regulation V/11.4 is limited to voluntary SRSs,[38] or extends to mandatory SRSs that have not been submitted and accepted by the IMO. It is worth noting that SOLAS Regulation V/11 does not only deal with mandatory SRSs. It lays out the legal framework for *all* SRSs, setting out special conditions for adopting mandatory SRSs, but recognizing the existence and the need for voluntary SRSs. Voluntary schemes could still benefit from the IMO and associated processes as a vehicle to circulate information about them.

Among the possible SRSs that do not require adoption by the IMO and therefore fall within the purview of SOLAS Regulation V/11.4 are voluntary and mandatory SRSs applicable to port-bound vessels only. These SRSs are not problematic under international law. However, by contrast, mandatory SRSs targeting ships exercising innocent passage in the territorial sea or navigational rights in ice-covered areas more generally, adopted unilaterally by coastal states, might be considered controversial.[39]

UNCLOS does not explicitly mention SRS and *a fortiori* does not require a coastal state to follow any specific procedure in adopting an SRS. Adopting an SRS would not be inconsistent with Article 21(2), as it does not rely on any equipment additional to that which ships normally have onboard.

One might draw a parallel with a different type of navigational measure, expressly addressed in UNCLOS: sea lanes or traffic separation schemes (TSSs). When adopting sea lanes or TSSs, Article 22(3) (a) of UNCLOS requires a coastal state to merely "take into account" any recommendations of the IMO. The existence of a competence to unilaterally adopt sea lanes or TSSs in the territorial sea is even more evident when Article 22(3) (a) is contrasted with the rules for straits used for international navigation in Article 41(4) of the Convention. The latter establishes a clear cooperative legislative competence (between the IMO and the coastal state), which is not envisaged in the case of the territorial sea where a coastal state does not need any express permission from the IMO to designate sea lanes and prescribe TSSs. Thus, if sea lanes and TSSs provide a basis for the analogy, a coastal state would be entitled to adopt an SRS in its territorial sea unilaterally.

[38] Such an interpretation is favored by G. Plant, "The Relationship between International Navigation Rights and Environmental Protection: A Legal Analysis of Mandatory Ship Traffic Systems" in H. Ringbom (ed), *Competing Norms in the Law of Marine Environmental Protection* (Kluwer Law International, 1997), 17–18, who argues that while the wording is clumsy, the intention was to exclude only voluntary SRSs from the IMO adoption. E. J. Molenaar, *Coastal State Jurisdiction Over Vessel-Source Pollution* (Kluwer Law International, 1998), 213, argues that this would conflict with UNCLOS, and that the existence of the obligation to comply with SRSs adopted by the IMO does not affect the possible obligation to comply with mandatory SRSs not adopted by the IMO, i.e., pursuant to coastal state jurisdiction in the territorial sea or in ice-covered areas. The nonbinding circular IMO Doc. Res. MSC/Circ. 1060, 6 January 2003, specifies the purpose of SOLAS Regulation V/11.4 in a more open manner, as a provision that allows submitting SRSs of recommendatory nature, to be reviewed and recommended by the IMO for voluntary use.

[39] It is worth mentioning that the questions of whether Article 234 allows a coastal state to establish a mandatory SRS unilaterally, and whether this competence would be consistent with SOLAS, were at the heart of the NORDREG controversy, including the debate in the IMO. The NORDREG debate has been analyzed in literature; see Bartenstein, note 20; T. L. McDorman, "National Measures for the Safety of Navigation in Arctic Waters: NORDREG, Article 234 and Canada" in Myron H. Nordquist, John Norton Moore, Alfred H. A. Soons et al. (eds), *The Law of the Sea Convention: US Accession and Globalization* (Brill Nijhoff, 2012); J. Kraska, "The Northern Canada Vessel Traffic Services Zone Regulations (NORDREG) and the Law of the Sea" (2015) 30 *International Journal of Marine and Coastal Law* 225.

However, one needs to be careful when treating sea lanes, TSSs, and SRSs as analogous, as an SRS closely resembles a requirement of prior notification.[40] This is a controversial issue, which was a subject of debate during UNCLOS III.[41] Some states raised concerns with respect to systems requiring ships to report information of any kind to coastal states, presumably because of the fear of any potential action that a coastal state might take to prevent navigation based on the information obtained.[42] Thus the analogy between sea lanes, TSSs, and SRSs is of limited utility when dealing with coastal state jurisdiction to establish SRSs in the territorial sea.

Therefore, the main limitation to coastal state competence to require passing vessels to submit reports within an SRS is to not hamper innocent passage. The majority view of commentators is that the coastal state has jurisdiction to unilaterally adopt an SRS for the territorial sea,[43] but there exist arguments that all mandatory SRSs must be adopted by the IMO.[44] The most convincing interpretation of SOLAS Regulation V/11 is that it avoided the question of whether coastal states have competence to unilaterally adopt SRSs. The reports submitted at the IMO shortly before the adoption of the SRS amendment to SOLAS show that there was disagreement about this question.[45] As states could not reach agreement, leaving this issue aside made sense. The ambiguous language of SOLAS Regulation V/11.4 leaves the question open, and does not explicitly permit or prohibit unilateral adoption of mandatory SRSs.

Since the establishment of the SOLAS regime for SRSs, there has been some relevant state practice.[46] For example, Spain, the United States, and Russia have revealed their positions on the question as to whether a coastal state can adopt a unilateral SRS in its territorial sea. In 1999, Spain declared its intention to establish, unilaterally within its territorial sea, mandatory SRSs in areas of high traffic density, areas of difficult navigation, or environmentally sensitive areas.[47] Spain explicitly expressed its understanding that

[40] H. Yang, *Jurisdiction of the Coastal State Over Foreign Merchant Ships in Internal Waters and the Territorial Sea* (Springer, 2006), 211.

[41] See J. Solski, "New Russian Legislative Approaches and Navigational Rights Within the Northern Sea Route" (2020) 12 *The Yearbook of Polar Law* 228, 247.

[42] Ibid.

[43] See Molenaar, note 38, 214; J. Harrison, *Making the Law of the Sea* (Cambridge University Press, 2011), 192; H. Ringbom, *The EU Maritime Safety Policy and International Law* (Martinus Nijhoff Publishers, 2008), 447–448; Yang, note 40, 194.

[44] Plant, note 38, 17–18.

[45] The report by the Chairman of the Informal Working Group on the legal issues regarding mandatory SRSs and VTS indicated that there existed different interpretations of whether UNCLOS provided a legal basis for mandatory reporting; see IMO Doc. LEG 68/5, 19 February 1993, and E. Franckx, "Coastal State Jurisdiction with Respect to Marine Pollution: Some Recent Developments and Future Challenges" (1995) 10 *International Journal of Marine and Coastal Law* 253, 267–268. Franckx, 276, refers also to the controversy surrounding the adoption of a mandatory SRS in the Old Bahama Channel in 1989. Cuba first approached the IMO to obtain the approval for a mandatory SRS. When it turned out that the process would take two years, Cuba decided to adopt the system unilaterally. This provoked an official protest of the United States on the basis that the SRS had the practical effect of hampering the right of transit passage through an international strait. The IMO, which was then working on the clarification of the relevant international rules, requested that Cuba revisit its mandatory SRS and Cuba complied with the request.

[46] See, for instance, M. J. Kachel, *Particularly Sensitive Sea Areas: The IMO's Role in Protecting Vulnerable Marine Areas* (Springer, 2008), 198.

[47] IMO Doc. MSC 71/20/12, 18 February 1999.

> it would not involve an extension of the powers of jurisdiction recognized to coastal States in UNCLOS article 21 (1), which already allows coastal states to enact laws and regulations in their territorial waters on safety of navigation and regulation of maritime traffic.[48]

In response, the delegation of the United States, supported by the delegation of Russia, protested against Spain's initiative to adopt a unilateral mandatory SRS within its territorial sea.[49] The statement sets out the position of the United States and, less explicitly, Russia, that mandatory SRSs must first be submitted to the IMO for review and adoption.[50] Following this discussion, the MSC instructed the Sub-Committee on Safety of Navigation (NAV) to consider Spain's proposal further. The NAV's report to the MSC notes that Spain informed the NAV "of their intention to submit these systems to the Committee."[51] This event lends further support to the observation that the question of the competence to adopt unilateral SRSs in the territorial sea is not fully settled. More importantly, one cannot but note the contrast between Russia's position expressed towards Spain's initiative, and the interpretation it pursues with respect to Article 234.[52] The scope of coastal state competence in the territorial sea and under Article 234 is not identical, so it would be far-reaching to posit that Russia's position vis-à-vis Spain means that it is estopped from adopting a unilateral SRS for the NSR, but the discrepancy between the positions is worth noting.

In practice, likely due to pragmatic reasons, states appear to seek approval from the IMO to adopt mandatory SRSs within the territorial sea.[53] Moreover, there are examples of mandatory SRSs exclusively confined to the territorial sea that have been adopted by the IMO. IMO Ships' Routeing 2013,[54] for example, lists 23 mandatory SRSs adopted by the IMO, including Poland's SRS on the Approaches to the Polish Ports in the Gulf of Gdansk (GDANREP), for which the operational area is limited to the Polish territorial sea and internal waters.[55] Similarly, Iceland's SRS off the southwest coast of Iceland (TRANSREP) has been adopted by the IMO although its geographical coverage is located entirely within Icelandic territorial waters.[56]

It is difficult to ascertain whether there are any unilaterally adopted SRS that are mandatory for ships in lateral passage (not calling at a port) through the territorial sea. One example referred to in the literature is the SRS adopted in the vicinity of the port

[48] IMO Doc. MSC 71/20/12, 18 February 1999.

[49] IMO Doc. MSC 71/23, 2 June 1999, [20.30].

[50] IMO Doc. MSC 71/23, 2 June 1999, [20.30] speaks of the concerns over Spain's proposal expressed by the delegation of the United States, supported by Russia. Then it refers to a more specific argument made by the United States that "any mandatory" SRS must be submitted to the IMO for review and adoption. The report does not explicitly attribute the latter argument to Russia.

[51] IMO Doc. NAV 45/14, 25 October 1999, [3.34].

[52] Russia has unilaterally adopted an extensive SRS for the NSR; see J. Solski, "Russia" in R. C. Beckman, T. Henriksen, K. D. Kraabel et al. (eds) *Governance of Arctic Shipping: Balancing Rights and Interests of Arctic States and User States* (Brill Nijhoff, 2017), 173, 206.

[53] Kachel, note 46, 198.

[54] IMO, *Ships' Routeing: 2013 Edition* (International Maritime Organization 2013).

[55] IMO Doc. MSC 249(83), 8 October 2007.

[56] IMO Doc. MSC 250 (83), 8 October 2007.

of Piraeus, but this SRS appears only to target port-bound ships.[57] A more recent example is the reporting requirement imposed by Norway in the maritime zones surrounding Svalbard and Jan Mayen.[58] Norwegian regulations require passenger vessels and other vessels with a minimum length of 24 meters to report their positions and sailing route on the entry to or departure from the territorial sea.[59] The requirement also applies to vessels in lateral passage. Although Norway adopted this particular requirement unilaterally, it exempts ships that are required to have an Automatic Identification System (AIS) that submits reports in intervals of no more than six hours, Long Range Identification and Tracking (LRIT) or a Vessel Monitoring System (VMS): in practice, ships covered by SOLAS Chapter V/19. Owing to the supplementary nature of this requirement, which targets a low number of ships in an area that is relatively unimportant for international navigation but extremely challenging for maritime safety, this initiative has not proven controversial.[60] The Norwegian Coastal Administration proposed, in 2016, to abolish this requirement, mainly due to the limited need for manual reporting in light of technological developments allowing for the gathering of information automatically[61]; however, the new set of regulations retains the same reporting requirements.[62] Technological developments, such as AIS, LRIT, and VMS, may indeed ensure that the debate on SRSs that rely on radio transmission will gradually cease to have practical relevance.

Although it is challenging to identify states that have unilaterally adopted mandatory SRSs in the territorial sea, this does not mean that such SRSs do not exist, or that it is illegal for a coastal state to adopt one. However, an observation that emerges based on this challenge is that it would also be difficult for other states and vessels to know about such systems. If the information about an SRS is not properly disseminated, it will not feature on navigational charts, and it would be difficult to expect compliance. In that respect, endorsement of the SRS by the IMO has practical significance. States can quickly learn about new SRSs and implement new obligations as flag states, for example, by encouraging ships under their jurisdiction to comply with mandatory SRSs adopted by the IMO.[63]

[57] A. Strati, "Case Study of Greece" in E. Franckx (ed), *Vessel-Source Pollution and Coastal State Jurisdiction: The Work of the ILA Committee on Coastal State Jurisdiction Relating to Marine Pollution (1991–2000)* (Brill Nijhoff, 2001) 282; also mentioned by Yang, note 43, 210.

[58] T. Henriksen, "Norway, Denmark (in respect of Greenland) and Iceland" in R. C. Beckman, T. Henriksen, K. D. Kraabel et al. (eds), *Governance of Arctic Shipping: Balancing Rights and Interests of Arctic States and User States* (Brill Nijhoff, 2017), 245, 267.

[59] Chapter 4 of Norway, Forskrift om Havner og Farvann på Svalbard [Regulation on Ports and Fairways on Svalbard], 30 December 2009, repealed 12 March 2021.

[60] There is no information available to suggest that other states protested against this requirement.

[61] Norway, Kystverket, 'Høring: Forslag om å oppheve kravet om manuell posisjonsrapportering på Svalbard [Hearing: Proposals for lifting the requirement for manual position reporting on Svalbard],' 8 November 2016, at: https://docplayer.me/37284620-Horing-forslag-om-a-oppheve-kravet-om-posisjonsrapportering-pa-svalbard.html (accessed 16 August 2021).

[62] Chapter 2 of Norway, Forskrift om Havner og Farvann på Svalbard [Regulation on Ports and Fairways on Svalbard], 12 March 2021, at: https://lovdata.no/dokument/LTI/forskrift/2021-03-12-721 (accessed 16 August 2021).

[63] An example of such practice seems to be the UK Marine Guidance Note 153, which stipulates, "United Kingdom ships anywhere in the world must comply with any mandatory ship reporting system adopted by the IMO, which applies to them." Certainly, this does not entail a rejection of the existence of (concurrent) coastal state jurisdiction to adopt a mandatory SRS unilaterally. However, it highlights a practical problem that may arise at the level of implementation of international duties by flag states. The United Kingdom, for instance, does not reject a (possible)

Summing up, it is not clear if Article 21(1) of UNCLOS confers a right to adopt a mandatory SRS within the territorial sea without IMO endorsement. Many coastal states have in fact submitted SRSs to the IMO for adoption. From a legal perspective, adoption by the IMO grants international recognition to the measure and preempts possible protests that a SRS hampers innocent passage. Nonsubmission to the IMO does not imply per se that a measure hampers innocent passage, but its adoption by the IMO offers recognition that it does not. From a practical perspective, the IMO offers an efficient vehicle to secure awareness of a measure by the international community.[64] These two factors, awareness and prima facie recognition of the legality of a SRS, represent the value of IMO adoption that should typically exceed the benefits of unilateral adoption, at least in light of the recognized objectives of SRSs.

Pilotage

Pursuant to Article 21 (1) (a), and possibly Article 21(1) (f) of UNCLOS, a coastal state can arguably adopt mandatory pilotage in the territorial sea.[65] Furthermore, pilotage does not typically relate to CDEM standards,[66] and therefore the restriction on coastal state jurisdiction under Article 21(2) does not apply. Unlike the power to designate sea lanes or TSSs, however, UNCLOS is silent on the competence or procedure to adopt a system of compulsory pilotage in the territorial sea. The fundamental limitation to coastal state jurisdiction is reflected in Article 24, which prohibits a coastal state from hampering innocent passage. The role of the IMO in the process is not clear, even more so because pilotage, unlike ship reporting, is not addressed in any of the IMO instruments. The only explicit and generally applicable endorsement of pilotage, as a useful navigational measure to contribute to the safety of navigation in a more effective way than other possible measures, can be found in the 1968 Resolution of the IMCO Assembly.[67] In order to shed more light on the parameters of the international legal regime governing pilotage, and specifically whether a coastal state can adopt mandatory pilotage unilaterally in the territorial sea, this section addresses the relevant state practice. The three relevant examples are the Strait of Messina, the Great Barrier Reef (GBR), and the territorial sea of Svalbard.

The Strait of Messina is generally recognized as falling within the Article 38(1) exception to Part III of UNCLOS, where transit passage does not apply if there exists seaward of an island a route through the high seas or an EEZ of similar convenience with respect to navigational and hydrographical characteristics. Accordingly, the applicable

duty to comply with other schemes, but reminds UK ships about the duty to comply with those SRSs that are adopted by the IMO.

[64] For example, the inclusion in the IMO Ships' Routeing Manual.

[65] See Molenaar, note 38, 414. However, Yang, note 40, 212, warns that the right to adopt compulsory pilotage for the territorial sea "may not be taken for granted"; D. R. Rothwell, "Compulsory Pilotage and the Law of the Sea: Lessons learned from the Torres Strait" *ANU College of Law Research Paper* No. 12-06, 2, argues that it is not unilateral; however, for instance, Kachel, note 46, 203, implies that IMO approval for compulsory pilotage is necessary only beyond the territorial sea, i.e., in the EEZ.

[66] Kachel, note 46, 202, highlights that the pilot is taken onboard only temporarily, is not a member of the crew, and is supposed to give advice to the ship's master. As such, pilotage resembles VTS more than a "manning" standard.

[67] IMO Doc. Res. IMCO Assembly A.159 (ES.IV), 27 November 1968.

regime of navigation in the strait is a right of nonsuspendable innocent passage. As a direct response to a large oil spill resulting from a collision between the Greek tanker *Patmos* and the Spanish tanker *Castillo de Monte Aragon* on 21 March 1985, Italy adopted a decree on 27 March 1985, superseded by the decree of 6 May 1985, which included a series of interim navigational measures. Among other measures, the decree established compulsory pilotage for all ships over 15,000 tons and ships over 6000 tons carrying oil or other harmful substances.[68] The system of mandatory pilotage was met with protest from the United States.[69] The U.S. reaction to the measure taken unilaterally by Italy reflects that there is no consensus on the existence of a unilateral right of a coastal state to adopt compulsory pilotage in the territorial sea.

Another example where compulsory pilotage has been adopted for the territorial sea is in the GBR. Australia identified the GBR as a Marine Park in 1975. On 16 November 1990, the MEPC designated the GBR as the first ever particularly sensitive sea area (PSSA).[70] Australia had previously adopted a system of compulsory pilotage for merchant ships over 70 meters in length, navigating the inner route of the GBR, bound to or from an Australian port.[71] As clarified by Australia, most of the area of compulsory pilotage lies within Australian internal waters as created by baselines proclaimed in 1983, with other small areas lying within the territorial sea.[72] In the 16 November 1990 resolution, the MEPC recommended that governments follow the system of pilotage as implemented by Australia with respect to parts of the GBR.[73] Although the general reception of the Australian proposal to adopt a system of compulsory pilotage in the inner route of GBR was positive, the MEPC nevertheless used recommendatory language.[74] Specifically, the MEPC resolution provided that it

> RECOMMENDS that Governments recognize the need for effective protection of the Great Barrier Reef region and inform ships flying their flag that they should act in accordance with Australia's system of pilotage for merchant ships.[75]

Subsequently, Australia amended the Great Barrier Reef Marine Park Act 1975 to provide for compulsory pilotage for vessels over 70 meters long, and all loaded oil tankers, chemical tankers, and liquefied gas carriers in the inner route of the GBR and the

[68] See T. Scovazzi, "The Strait of Messina and the Present Regime of International Straits" in D. Caron and N. Oral (eds), *Navigating Straits: Challenges for International Law* (Brill Nijhoff, 2014), 146.

[69] J. A. Roach and R. W. Smith, *Excessive Maritime Claims* (3rd edn, Martinus Nijhoff Publishers, 2012), 231, refer to the U.S. diplomatic protest (a Diplomatic Note of 5 April 1985) against an attempt by Italy to introduce compulsory pilotage. In the relevant part, the U.S. note reads: "The US Government further considers the compulsory pilotage requirement to be inconsistent with non-suspendable right of innocent passage." Molenaar, note 38, 334, in turn, argues that the system of compulsory pilotage in the Strait of Messina would not be inconsistent with a nonsuspendable right of innocent passage. Scovazzi, note 68, 148, observes that it is difficult to find a precise legal basis for the Italian measures.

[70] IMO Doc. Res. MEPC 44 (30), 16 November 1990.

[71] IMO Doc. MEPC 30/19/4, 19 September 1990.

[72] Ibid.

[73] IMO Doc. Res. MEPC 44 (30), 16 November 1990.

[74] See, for example, IMO Doc. MEPC 55/23, 16 October 2006, [8.10], where the Chairman of MEPC clarifies that when the Committee begins a paragraph with the word "RECOMMENDS," the content of the paragraph is of recommendatory nature.

[75] IMO Doc. Res. MEPC 44 (30), 16 November 1990.

Hydrographer's Passage.[76] While the inner route of the GBR is located mostly within internal waters, Rothwell notes that the area for which Australia was imposing compulsory pilotage in the GBR included Australia's internal waters and the territorial sea.[77]

The Australian initiative was not controversial.[78] A crucial factor for Australia's success was that most of its scheme was located within internal waters and that Australia explicitly recognized the right of innocent passage not only in the territorial sea of the GBR but also in internal waters.

It is questionable, however, to what extent the GBR system of compulsory pilotage sets a precedent for an interpretation of Article 21(1) that permits a coastal state to adopt compulsory pilotage within its territorial sea. Australia explicitly relied on Article 21(1)(a), (d,) and (f) of UNCLOS as the legal basis for its proposal.[79] Rothwell argues that recognition by the IMO that the waters in question required the services of a pilot to ensure safe passage was crucial for concluding that Australia's action did not hamper innocent passage.[80] The Australian submission to the IMO can be seen as an acknowledgment that it lacked authority to unilaterally adopt a compulsory pilotage system in the territorial sea.[81]

The third example relates to the regulation of mandatory pilotage applicable to vessels operating within the territorial waters of Svalbard.[82] The 2012 Regulations Relating to the Pilotage Service on Svalbard,[83] in paragraph 1, stipulate that the regulations apply to Svalbard, including the territorial sea and internal waters. The application of the regulations to the territorial sea follows a formulation similar to that used in paragraph 1(1) of the 2014 Compulsory Pilotage Regulations generally applicable to Norway. Paragraph 4(3) of the 2014 Compulsory Pilotage Regulations allows the Norwegian Coastal Administration to identify the areas for which compulsory pilotage is necessary, and this includes the possibility of expanding the requirement to the territorial sea. However, Norway has only adopted compulsory pilotage within some parts of internal

[76] Australia's Great Barrier Reef Marine Park Amendment Act 1991, No. 121, at: https://www.legislation.gov.au/Details/C2004A04196 (accessed 3 May 2021).

[77] Rothwell, note 65, 9.

[78] S. Kaye, "Regulation of Navigation in the Torres Strait: Law of the Sea Issues" in D. Rothwell and S. Bateman (eds), *Navigational Rights and Freedoms and the New Law of the Sea* (Martinus Nijhoff Publishers, 2000), 119, 126, states: "Australia felt confident to legislate with respect to pilotage in the GBR"; S. Bateman and M. White, "Compulsory Pilotage in the Torres Strait: Overcoming Unacceptable Risks to a Sensitive Marine Environment" (2009) 40 *Ocean Development and International Law* 184, 191, note the system has been accepted without challenge by other countries.

[79] Australia, "Aide Memoire by the Australian Government, Freedom of Navigation—Protection of the Marine Environment—Compulsory Pilotage of Vessels—Great Barrier Reef Marine Park—International Maritime Organization Recommendation" (1992) 13 *Australian Year Book of International Law* 298; also Rothwell, note 65, 9.

[80] Rothwell, note 65,10.

[81] Ibid; see also D. R. Rothwell, "UNCLOS Navigational Regimes and their Significance for the South China Sea" in Sh. Wu, M. Valencia, and N. Hong (ed), *UN Convention on the Law of the Sea and the South China Sea* (Ashgate Publishing Company, 2015), 149, 157, for his view that "in the absence of international recognition by a body such as the IMO that the waters of the territorial sea were either particularly hazardous or particularly sensitive thereby requiring the services of a pilot to ensure safe passage, compulsory pilotage enforced by way of coastal State laws and regulations would be considered to hamper innocent passage."

[82] As reported by Henriksen, note 58, 268.

[83] Norway, Regulations relating to the Pilotage Service on Svalbard, 25 June 2012, repealed 12 March 2021.

waters.[84] Hence, the Norwegian example does not qualify as state practice supporting the imposition of compulsory pilotage for ships in lateral passage in the territorial sea.

It is concluded that the authority to adopt compulsory pilotage may fall within the ambit of coastal state jurisdiction in the territorial sea provided it does not hamper innocent passage. The evaluation of a specific pilotage system is based on the specific characteristics of the area, the robustness of the system, availability of pilots, and the prices for services. The examples of the Strait of Messina and Norway indicate that compulsory pilotage is a sensitive issue. The example of the GBR shows that the endorsement of the IMO, although providing no specific legal basis for the measure, can help to dispel doubts about the legitimacy of the proposed compulsory pilotage in the territorial sea. The IMO's endorsement may serve to shift the burden of proof or eliminate the doubt regarding the "hampering effect" of compulsory pilotage on the right of innocent passage.

Other Routing Measures: No Anchoring and Areas to Be Avoided

The IMO has exclusive competence for developing guidelines, criteria, and regulations on an international level for ships' routing systems.[85] A ship routing system is defined as "any system of one or more routes or routeing measures aimed at reducing the risk of casualties; it includes TSSs, two-way routes, recommended tracks, areas to be avoided, no anchoring areas,[86] inshore traffic zones, roundabouts, precautionary areas and deep water routes."[87]

SOLAS Regulation V/10 does not specify the jurisdictional reach of ships' routing, but, rather, defers this matter to UNCLOS. In that regard, SOLAS Regulation V/10.4 stipulates that "ships' routeing systems should be submitted to the Organization for adoption." More specifically, paragraphs 3.12–3.16 of the General Provisions on Ships' Routeing (GPSR) address routing systems within the territorial sea. Paragraph 3.12 stipulates that governments "are requested to […] submit them [routing systems, no part of which lie beyond the territorial sea] to the IMO for adoption." Yet paragraph 3.13 appears to recognize the discretion of states not to submit a routing system to the IMO, "for whatever reason."[88] In light of paragraph 3.16, which reiterates the "nonprejudice" clause of SOLAS Regulation V/10.10, it appears that the SOLAS regime of ships' routing does not affect the rights and duties as set out in UNCLOS.[89]

[84] This follows from the official information by the Norwegian Coastal Administration, published at: https://www.kystverket.no/en/pilotage-service-and-pilotage-exemption-certificate/pilotage/pilotage-service-and-compulsory-pilotage-in-svalbard (accessed 3 May 2021). Also, Norway has not adopted compulsory pilotage in other parts of the territorial sea.

[85] SOLAS Regulation V/10.2.

[86] Introduced by the amendments by the MSC to IMO Doc. Res. A. 572(14), 20 November 1985, annexed to IMO Doc. SN/Circ. 215, 19 January 2001.

[87] Para. 2.1.1 of the General Provisions on Ships' Routeing adopted as IMO Doc. Res. A. 572(14), 20 November 1985.

[88] See also Ringbom, note 43, 442, in footnote 231.

[89] Here, it is perhaps good to refer to Ringbom, note 43, 442, providing an excellent overview of the debate in literature; and Plant, note 38, 21–22, pointing to the drafting history to suggest the intention to assign the IMO with an approval role for ship's routing measures in the territorial sea; while other academics like Molenaar, note 38, 213, or L. S. Johnson, *Coastal State Regulation of International Shipping* (Oceana Publications, Inc. 2004), 71–73, take the opposite view.

UNCLOS explicitly addresses the authority of a coastal state to adopt sea lanes and TSSs in the territorial sea and straits used for international navigation. Under Article 22(1) a coastal state may, where necessary, designate sea lanes or TSSs in the territorial sea. Article 22(3) assigns the IMO a merely recommendatory role, as the coastal state shall "take into account the recommendations of the competent international organization."[90] In an analogous provision regarding straits used for international navigation, Article 41(4) establishes a "cooperative legislative competence" for the adoption of sea lanes and TSSs,[91] wherein bordering states "shall refer proposals to the competent international organization with a view to their adoption."

There is no clarity on whether the adoption of a ships' routing measure other than sea lanes and TSSs, such as an Area to Be Avoided (ATBA) or no anchoring in the territorial sea, requires the approval of the IMO.[92] It can be presumed that the coastal state should consider the size and importance of the area to navigation and the stringency of the measure.[93] A submission to the IMO to adopt a routing measure may be useful to provide certainty that the coastal state has not violated its duties, but it does not appear to be necessary. Nevertheless, a seal of approval from the IMO may be critical for practical purposes, even in instances where UNCLOS does not establish a "cooperative legislative competence."

In this context, some particular attention is required to no anchoring measures. The GPSR, in paragraph 2.2.14, defines a no anchoring area as

> A routeing measure comprising an area within defined limits where anchoring is hazardous or could result in unacceptable damage to the marine environment. Anchoring in a no anchoring area should be avoided by all ships or certain classes of ships, except in case of immediate danger to the ship or the persons on board.

Damage potentially caused by anchoring relates to the physical damage caused by the anchor's direct impact or by dragging the anchor cables and chains.[94] As these elements are usually weighty, they may inflict irreversible damage to coral reefs and the marine life depending on them. However, the damage caused by an anchor is likely not covered by the definition of pollution of the marine environment in Article 1(1)(4) of UNCLOS. Thus, regulations on anchoring do not relate to vessel-source pollution but, rather, to

[90] B. H. Oxman, "Environmental Protection in Archipelagic Waters and International Straits: The Role of the International Maritime Organization" (1995) 10 *International Journal of Marine and Coastal Law* 467, 469, notes that it is not clear whether this requirement relates to general recommendations, such as those included in the GPSR, or individual recommendations adopted with regard to specific sea lanes or traffic separation schemes. In any case, as Oxman further observes, the coastal state may risk violating the duty not to hamper innocent passage if it ignores IMO recommendations, and conversely is on strong ground when it implements them.

[91] Oxman, note 91, 479; Molenaar, note 34, 282; R. Virzo, "Coastal State Competences Regarding Safety of Maritime Navigation: Recent Trends" (2015) 71 *SEQÜÊNCIA* 19, 26.

[92] For Japan's argument that mandatory areas to be avoided could undermine the right of innocent passage, see IMO Doc. MSC 63/7/19, 25 March 1994. New Zealand obtained the approval of the IMO for the ATBA, despite the fact that the entire proposed area was located within the territorial sea. For analysis, see J. P. Roberts, *Marine Environment Protection and Biodiversity Conservation: The Application and Future Development of the IMO's Particularly Sensitive Sea Area Concept* (Springer, 2007), 122–126.

[93] Ringbom, note 43, 442, in footnote 229, refers to IMO Doc. NAV 40/25, 23 September 1994, [4.19], stating that "the majority of delegations of the Sub-Committee was of the opinion that the establishment of mandatory areas to be avoided would not be in contravention of international law concerning freedom of navigation, if adopted by the [IMO]."

[94] Kachel, note 46, 35.

the conservation of marine living resources. In exercising jurisdiction for the purpose of the conservation of marine living resources, coastal states may arguably establish no anchoring areas unilaterally within the territorial sea, based on Article 21(1)(d), and within the EEZ, based on Article 56(1)(a) of UNCLOS.[95] Molenaar refers to specific examples of state practice by the Netherlands and the United States, which both regulate anchoring outside their territorial sea without seeking IMO approval, apparently without raising other states' objections.[96]

Yet despite the arguable existing legal basis for regulating anchoring outside the territorial sea without the approval of the IMO, both the United States and the Netherlands nevertheless eventually obtained IMO endorsement for their respective no anchoring areas as an associated protective measure (APM) accompanying PSSA designation. It was the desire of the United States to designate the Florida Keys PSSA, which contemplated three no anchoring areas—a measure unavailable under any of the IMO instruments at that time—that catalyzed the adoption of amendments to the GPSR.[97] The United States pushed for no anchoring areas to be incorporated in the GPSR,[98] and it was only after the adoption of the relevant amendment[99] that the United States submitted a proposal for the designation of the marine area around the Florida Keys as a PSSA.[100] The Saba Bank, in the northeastern Caribbean area of the Kingdom of the Netherlands, was formally subsequently designated as a PSSA on 5 October 2012,[101] with a mandatory no anchoring area and ATBA as APMs within the territorial sea and the EEZ.

Summary

The discussion so far shows no black-and-white practical distinction between cooperative and complete legislative competence in the territorial sea for the purposes enumerated in Article 21(1) of UNCLOS. Sovereign jurisdiction does not preclude, and at times requires, deliberation when its exercise impacts the rights of others. The analysis of state practice reveals that when adopting ship reporting systems, pilotage, and other routing measures, coastal states often decide to engage the IMO in different ways, even when such a course of action is not mandatory. The main contribution of the involvement of the organization is to alleviate the tensions surrounding controversial measures, build confidence, and show good faith.

Conclusion

The limitations on the exercise of jurisdiction under Article 234 of UNCLOS are vague. It is evident that the application of Article 234 implies a certain measure of

[95] Molenaar, note 92, 274.

[96] Ibid; see also Roach and Smith, note 69, 801, in reference to the relevant legislation of the United States that has included no anchoring areas.

[97] Kachel, note 46, 193 and 287.

[98] IMO Doc. NAV 46/3/2, 5 April 2000.

[99] The amendments by the MSC to IMO Doc. Res. A. 572(14), 20 November 1985, annexed to IMO Doc. SN/Circ. 215, 19 January 2001.

[100] IMO Doc. MEPC 46/6/2, 19 January 2001.

[101] IMO Doc. Res. MEPC.226 (64), 5 October 2012.

reasonableness in reaching a balance between the interests of navigation and the protection and preservation of the marine environment, which, although not restricted by express reference to GAIRAS and not subject to the IMO engagement, must be based on the best available science.

The substantive extent of coastal state jurisdiction in the territorial sea can serve as a point of reference for the determination of the substantive extent of jurisdiction under Article 234. This argument relies on the premise that the joint intention of Canada, the United States, and the USSR behind Article 234 was to allow the relevant coastal states to adopt, within the limits of their jurisdiction, adequate additional measures to prevent vessel-source pollution in the fragile marine environment in the Arctic. While these states were not willing to amend the delicate jurisdictional balance achieved in the territorial sea, they accepted that "special" measures could apply functionally in all ice-covered maritime zones. This leads to the possibility of holding the jurisdictional balance in the territorial sea as a yardstick for the test of reasonableness in the exercise of the "due regard" obligation. From this argument, one can further infer a duty not to hamper navigation through ice-covered areas in a way that is similar to the general duty not to hamper innocent passage as set out in Article 24 of UNCLOS.

A close analysis of state practice reveals that the practice of sovereignty in the territorial sea escapes the dichotomy between complete and cooperative legislative jurisdiction. Coastal states exercising sovereignty in the territorial sea often decide to engage in deliberation, usually via the IMO, even when such course of action is not mandatory. Examples of such practice include the adoption of SRSs, pilotage, ATBA, and no anchoring areas. By refraining from the unilateral exercise of jurisdiction that can affect navigation in those areas where international law is imprecise, coastal states secure international recognition for their measures through an approach that also promotes community values.[102] There is no reason why similar thinking should not be extended to Article 234, which, after all, grants jurisdiction with respect to vessel-source pollution, a much narrower spectrum of issues than sovereignty within the territorial sea.

Thus, it is submitted that meaningful deliberation, such as consultation, may be viewed as one (important) way of meeting the due regard obligation. Unilateral action does not sit well with the spirit of international cooperation embodied in the work of the IMO and in many relevant provisions of UNCLOS, including the "due regard" clause in Article 234. The governance of shipping, the most international and transnational industry, is, or at least aspires to be, characterized by transparency, dialogue, and participation of relevant stakeholders in decision-making. Deliberation can be meaningful without allowing affected stakeholders to dictate the terms. Instead, the point is to provide an inclusive setting to foster the exchange of views, scientific evidence, and concerns about the potential impact on the relevant rights or interests.

Would not stewardship, a concept implying moral authority, leadership, and responsibility, necessitate a holistic approach that preserves, when possible, the integrity of the international regime and creates a sense of predictability? The flexibility of the due

[102] There are also examples of Russia's similar practice in the Arctic, only outside of the NSR and the scope of application of Article 234. In 2012, Norway and Russia jointly proposed a New Mandatory Ship Reporting System in the Barents Area (Barents SRS), Resolution MSC.348(91), 28 November 2012, IMO Doc MSC 91/22/Add.2, Annex 27; in 2018, the United States and Russia jointly proposed ship routing measures in the Bering Sea and Bering Strait, IMO Doc. MSC99/22, 5 June 2018.

regard obligation appears to strengthen the duty to consider other stakeholders' views proportionately with their growing interests in navigation. The adoption of the Polar Code and the associated developments in Arctic shipping governance indicate that the international community's interest in Arctic shipping is increasing. If the Arctic States take this moral responsibility seriously, they should take the courage to lead the deliberation in the appropriate epistemic community. It may well be in the interest of every nation that decisions are based on the power of an argument and constructive science-based dialogue.

Finally, considering the history of Article 234, the engagement of the IMO may be unrealistic. However, the emerging mechanism for deliberative practice and the corresponding epistemic communities may be broader and represent a wider range of concerns in the Arctic than elsewhere. Deliberation is a matter of degree rather than a strict dichotomy between engaging the IMO or not. In this context, in addition to the IMO, the relevant epistemic community may include the Arctic Council with its working groups,[103] the Arctic Shipping Best Practice Information Forum,[104] and alternative diplomatic or expert communities where dialogue can take place.

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[103] Especially the Protection of the Arctic Marine Environment (PAME), but also the Emergency Prevention, Preparedness and Response (EPPR) and the Arctic Monitoring and Assessment Programme (AMAP) would be relevant.

[104] More information available at: https://pame.is/arcticshippingforum (accessed 3 May 2021).