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Abstract

The present thesis begins with a brief history of the Law of the sea and introduces the legal regime of the key maritime zones. It then reviews the demolition of the equidistance method of maritime boundary delimitation with the ICJ judgment on the 1969 North Sea Continental Shelf Cases and describes the three-step approach that followed the jurisdiction of the ICJ, particularly after 2009. At the heart of the thesis lie the rules and procedures regarding the delineation of the outer limits of the continental shelves beyond 200 nm by the coastal states through the illustrating case study of the Arctic region and in particular the Central Arctic Ocean. The reduced ice cover and the potential of natural wealth, which makes the Arctic a new geopolitical hot spot creating overlapping claims among the coastal states concerned, are highlighted to mark the need of determining the final unclarified boundaries in the Arctic Ocean.

Keywords: UNCLOS, maritime boundary delimitation, Continental Shelf, Arctic region, outer limits beyond 200 nm, equidistance principle, equitable principles, meridians, submission, Commission on the Limits of the Continental Shelf

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Acronyms & Abbreviations

BBNJ	Biodiversity Beyond National Jurisdiction
CLCS	Commission on the Limits of the Continental Shelf
EEA	European Economic Area
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EFZ	Exclusive Fishery Zone
ICJ	International Court of Justice
ILC	International Law Commission
ILO	International Labour Organization
IMO	International Maritime Organization
ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
LoS	Law of the Sea
LOSC	Law of the Sea Convention
MARPOL	International Convention for the Prevention of Pollution from Ships
MPA's	Marine Protected Areas
nm	nautical mile =1.852 meters
PCA	Permanent Court of Arbitration
SMB	Single maritime boundary
UN	United Nations
UNCLOS	United Nations Conference on the Law of the Sea
USGS	US Geological Survey
VCLT	Vienna Convention on the Law of Treaties

List of Cases

1. International Court of Justice

- Continental Shelf (*Libyan Arab Jamahiriya/Malta*), Judgment, I.C.J. Reports 1985
- Continental Shelf (*Tunisia/Libyan Arab Jamahiriya*), Judgment, I.C.J. Reports 1982
- Corfu Channel Case (*United Kingdom of Great Britain and Northern Ireland v Albania*), Judgment of April 9th, 1949: I.C.J. Reports 1949
- Delimitation of the Maritime Boundary in the Gulf of Maine Area (*Canada v. United States of America*), Judgment, I.C.J. Reports 1984
- Fisheries Case *(United Kingdom v. Norway*), Judgment of December 18th, 1951, I.C.J. Reports 1951
- Land and Maritime Boundary between Cameroon and Nigeria (*Cameroon v. Nigeria: Equatorial Guinea intervening*), Judgment, I.C.J. Reports 2002
- Maritime Delimitation and Territorial Questions Between Qatar and Bahrain (*Qatar v. Bahrain*), Merits, Judgment, I.C.J. Reports 2001
- Maritime Delimitation in the Area between Greenland and Jan Mayen (*Denmark v. Norway*), Judgment, I.C.J. Reports 1993
- Maritime Delimitation in the Black Sea (*Romania v. Ukraine*), Judgment, ICJ Reports 2009
- North Sea Continental Shelf (*Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands*), Judgment, I.C.J. Reports 1969
- Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (*Nicaragua v. Honduras*), Judgment, I.C.J. Reports 2007

2. International Tribunal for the Law of the Sea (ITLOS)

- Delimitation of the Maritime Boundary in the Bay of Bengal (*Bangladesh/Myanmar*), Judgment, ITLOS Reports 2012

3. Permanent Court of Arbitration (PCA)

- Arctic Sunrise Arbitration (*the Kingdom of the Netherlands v the Russian Federation*), Award, PCA 2014
- Maritime Boundary *(Barbados v Trinidad and Tobago),* Award, PCA 2006

4. Ad Hoc Arbitration

- Case Concerning the Delimitation of Maritime Areas between Canada and France (*St. Pierre and Miquelon*)*,* Arbitral Awards Reports 1992
- Case Concerning the Delimitation of the Maritime Boundary Between Guinea and Guinea-Bissau (*Guinea v. Guinea-Bissau),* Arbitral Awards Reports 1985
- Delimitation of the Continental Shelf between the United Kingdom of Great Britain and Northern Ireland, and the French Republic (UK/France) (or the Anglo-French Continental Shelf Case), Arbitral Awards Reports 1977-1978

List of Treaties/Conventions/Bilateral Agreements

- Agreement Between the Government of Canada and the Government of the USA on Arctic Cooperation of 11 January 1988
- Agreement between the Government of the Kingdom of Norway and the Government of the Kingdom of Denmark (Greenland) concerning the delimitation of the Continental Shelf and the fisheries zones in the area between Greenland and Svalbard of 20 February 2006
- Agreement between the Kingdom of Denmark (Greenland) and the Government of Canada relating to the Delimitation of the Continental Shelf between Greenland and Canada of 17 December 1973 (entered into force 13 March 1974)
- Agreement between the USA and the USSR on the Maritime Boundary of 1 June 1990
- Agreement on Cooperation in the fishing industry between Norway and the USSR of 11 April 1975
- Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic of 12 May 2011
- Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic of 15 May 2013
- Agreement on Enhancing International Arctic Scientific Cooperation of 11 May 2017
- Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, New York, 28 July 1994 (or New York Agreement)
- Agreements between Chile, Ecuador, and Peru, signed at the First Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific (18 August 1952) (or 1952 Santiago Declaration)
- Antarctic Treaty of 1 December 1959 (entered into force in 1961)
- Biodiversity Beyond National Jurisdiction (BBNJ) Agreement (or the Treaty of the High Seas) (not yet concluded)
- Convention on Fishing and Conservation of the Living Resources of the High Seas of 29 April 1958 (entered into force 20 March 1966)
- Convention on the Continental Shelf of 29 April 1958 (entered into force 10 June 1964)
- Convention on the High Seas of 29 April 1958 (entered into force 30 September 1962)

- Convention on the Territorial Sea and the Contiguous Zone of 29 April 1958 (entered into force 10 September 1964)
- Ilulissat Declaration of 28 May 2008
- Indigenous and Tribal Peoples Convention (ILO), 1989 (No. 169)
- International Agreement to prevent unregulated high seas fisheries in the Central Arctic Ocean of 3 October 2018 (entered into force 25 June 2021)
- Optional Protocol of Signature concerning the Compulsory Settlement of Disputes of 29 April 1958 (entered into force 30 September 1962)
- Ottawa Declaration of 19 September 1996
- Polar Code (International Code for Ships Operating in Polar Waters) of 2017 (entered into force 1 January 2017)
- Russo-American Treaty on Border Delimitation of 17 April 1824
- Treaty between Great Britain and Northern Ireland and Venezuela relating to the Submarine Areas of the Gulf of Paria of 26 February 1942 (entered into force 22 September 1942)
- Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean of 15 September 2010 (or Barents Sea Treaty)
- Treaty concerning the Cession of the Russian Possessions in N. America by His Majesty the Emperor of all the Russians to the United States of America of 30 March 1867
- Treaty of Saint Petersburg (or Anglo-Russian Convention) of 1825
- United Nations Convention on the Law of the Sea (LOSC) of 10 December 1982 (entered into force 16 November 1994)
- Vienna Convention on the Law of Treaties of 23 May 1969 (entered into force 27 January 1980)

United Nations General Assembly Resolutions

- Resolution 1105 (XI) of 21 February 1958
- Resolution 1307 (XIII) of 10 December 1960
- Resolution 2467 (XXIII) of 21 December 1968
- Resolution 2749 (XXV) of 17 December 1970 (Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction*)*
- Resolution 2750 (XXV) of 17 December 1970
- Resolution 48/263 of 17 August 1994

National Law

United States

- Proclamation 2667 by President Truman of 28 September 1945 on the Policy of the US with respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf
- Proclamation 2668 by President Truman of 28 September 1945 on the Policy of the US with respect to Coastal Fisheries in Certain Areas of the High Seas

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Introduction to the Law of the Sea

(I) The first codifying efforts

The Law of the Sea (LoS) constitutes a very ancient branch of international law that includes the rules that regulate the rights and obligations of the coastal states in the sea. Its past activities included mainly navigation and fishing, which were the main economic interests of the states.

The absence of codification constituted for a long period the key problem of international law. Some parts of the LoS had crystallized in classical academic books, following legal and political struggles, like Hugo Grotius's "*Mare Liberum*" (The Free Sea), which was published in 1609 and was a negotiation about the freedom of the sea. The LoS has been developed gradually, mainly customarily with state practice, and at the same time disconnected from the private users of the sea, for which apply the provisions of maritime law of the powerful maritime states. These apply to the LoS in peacetime. The LoS during wartime was and still is imperceptible and has not been codified nor has been contractually regulated.

At the beginning of the 20th century, the LoS was in relative equilibrium, at least as far as the freedom of navigation is concerned. However, the main object of dispute remained, namely the issue of the limits of the territorial waters and the nature of the jurisdiction of the coastal states in the said zone. Therefore, diplomacy and science began to mature the idea of an international conference for codifying relevant customary laws.

The first but unsuccessful attempt to codify the LoS was made within the context of the League of Nations in 1930 (Hague Codification Conference). After the end of World War II, the then President of the United States (US), Harry Truman, issued two declarations ("Truman Declarations") concerning the fishing rights and the rights of exploration, control, and exploitation of the seabed beyond the territorial waters (namely the "continental shelf"). These two declarations and especially the second one constituted the basis for the subsequent radical developments of the LoS.

In 1956, the International Law Commission (ILC) dealt with the codification and progressive development of the LoS, and submitted to the General Assembly of the newly founded United Nations (UN), a final draft of 73 articles. Recognizing that the developments in the field of the LoS required a more thorough codification, due to international concerns about sovereignty over maritime areas, as well as the need for common exploitation of natural resources, in 1958, the General Assembly, following the adoption of Resolution 1105 (XI) of February 21, 1958, decided to convene in Geneva the first United Nations Conference on the Law of the Sea

(UNCLOS I). The purpose of this Conference was to examine all LoS's aspects and problematic areas as well as to incorporate its results into one or more Conventions.

The UN Conference resulted in the adoption of four separate multilateral conventions: the Convention on the High Seas (CHS) (which entered into force in September 1962); the Convention on the Territorial Sea and the Contiguous Zone (CTS) (which entered into force in September 1964); the Convention on the Continental Shelf (CCS) (entered into force in June 1964) and the Convention on Fishing and Conservation of the Living Resources of the High Seas (CFCLR) (entered into force in March 1966). In addition to the conventions, an Optional Protocol of Signature (OPSD) concerning the Compulsory Settlement of Disputes was adopted. [1] However, the Geneva Conventions have not been widely ratified by the states. It should be mentioned, though, that the Convention on the High Seas formulated customary rules, as it is explicitly referred to in its preamble, and therefore either is ratified or not by the states, is applied *erga omnes*.

In 1958, the General Assembly, as a further attempt to reach an agreement mainly on the unresolved question of the limit of the territorial waters and the classification of the international straits, following the adoption of Resolution 1307 (XIII) of December 10, 1960, convened the second United Nations Conference on the LoS (UNCLOS II), which took place in 1960 in Geneva, proving, though, fruitless.

(II) The Third United Nations Conference on the LoS and the adoption of UNCLOS

During the '60s, the international environment started to experience radical changes. A large group of underdeveloped or developing states of Africa and Asia, which had not participated in the previous UN Conferences (as the decolonization process took place for the most part in the '60s), were claiming control of extended maritime areas of natural resources that until then were accounted for as areas of the high seas. Thus, the small number of states that acceded to the Geneva Conventions demonstrated that the LoS was not possible to be developed without a new codifying aim, *a fortiori* because the persistently divergent positions of the states concerning the exploitation of the maritime zones, and in particular the state practice in respect with the limit of the territorial sea, would be possible to lead to international conflicts.

Therefore, following the famous speech by the Permanent Representative of Malta to the UN, Arvid Pardo, at the General Assembly in 1967, who referred for the first time to the "common

[1] From *Δημόσιο Διεθνές Δίκαιο [Public International Law]* (2nd ed., pp. 239–390.), by E. Roucounas, 2015, NOMIKI BIBLIOTHIKI.

heritage of mankind", various Decisions adopted by the General Assembly, the latter of which, following the adoption of Resolution 2750 (XXV) of December 17, 1970, decided to convene a Conference, in 1973, "which would deal with the establishment of an equitable international regime-including an international machinery-for the area and the resources of the seabed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (the Area)". [2] The third UN Conference on the LoS (UNCLOS III) took place, initially, in Caracas, Venezuela, then in New York, and finally at Montego Bay, Jamaica, being the largest (1973-1982) intergovernmental conference in the history of diplomacy. Within this context, the "Committee on the Peaceful Uses of the Seabed and the Ocean Floor beyond the Limits of National Jurisdiction", also known as "International Seabed Authority", which was established by Resolution 2467 (XXIII), played a fundamental role in the agenda of UNCLOS III. At the said Conference participated, among others, 165 states, specialized international organizations, and some non-governmental organizations. Following nine years of long and tenuous negotiations, the final draft was prepared in the form of a package deal, with the United Nations Convention on the Law of the Sea (hereafter: UNCLOS or LOSC) to be adopted, by the majority, on December 10, 1982, in Montego Bay and formally entered into force twelve years later, on November 16, 1994, after the 60th state - Guyana - did recognize it. Four states voted against and still are not parties to UNCLOS. These are the US, Turkey, Israel, and Venezuela. Up to 2022, the contracting parties amount to 168, including the European Union, 157 of which have signed the Convention. It should be noted that, under Article 311(1) UNCLOS, the aforesaid Convention "*shall prevail, as between States Parties, especially over the Geneva Conventions on the LoS of 1958*".

The General Assembly adopted Resolution 48/263 regarding the adoption of the *Agreement relating to the Implementation of Part XI* of the UN Convention. The said Agreement is also known as the "*New York Agreement*" and is the "result of the informal consultations among states held from 1990 to 1994 on outstanding issues relating to Part XI". [3]

After the adoption of UNCLOS, some industrial states, headed by the US, raised the issue of the review of Part XI of the Convention that concerns the Area. Indeed, the industrial states had raised many objections to the exploitation system of the mineral resources of the international seabed. Therefore, and given the fact that in UNCLOS the deposit of reservations or exemptions is prohibited unless it is explicitly permitted by other provisions of the Convention (Article 309

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[2] From *Final Act of the Third United Nations Conference on the Law of the Sea* (A /CONF.62 7121), 1982. Division for Ocean Affairs and the Law of the Sea (https://treaties.un.org/doc/source/docs/A_CONF.62_121-E.pdf).

[3] From *Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982*, New York, 28 July 1994 (or New York Agreement) (https://www.un.org/depts/los/convention_agreements/texts/unclos/closindxAgree.htm).

UNCLOS), a solution had to be found to ease the participation of those states. Under different circumstances, it would have entailed the risk that UNCLOS would enter into force, on the one hand, but on the other hand, the number of contracting parties would be small, so its implementation would be dubious. Hence, *the New York Agreement* was adopted aiming at the facilitation of global participation in UNCLOS and the implementation of a new public international regime over the ocean floor. It is noteworthy that in *the New York Agreement*, there is no allusion to the term "modification", but instead the "implementation of UNCLOS" is mentioned. Nonetheless, this Agreement constitutes a substantial modification of the Convention. It is considered that the Agreement under question substituted the initial Part XI, but technically is separate from the Convention.

At this point, it should be mentioned that the majority of the provisions of the Convention since the beginning of the '80s, when they were established, until today tend to obtain or have already obtained the characteristics of customary law, regardless of their conventional character. Besides, in the North Sea CS Cases, the ICJ held that some provisions of the Geneva Convention on the Continental Shelf (CCS) constitute a crystallization of norms of customary law. In addition to this, C. Rozakis, the former Deputy Foreign Minister of Greece, has stated in his book "*The EEZ and the International Law*", that, during the 40 years since the adoption of the UNCLOS III, the states parties to the Convention, but also states non-parties, have developed a range of activities, actions, and initiatives that confirm the choices of Montego Bay and add with their severity validity to them, […], strengthening the taking of evidence of the "customization" of the Convention's law.

Finally, in the UNCLOS III, there is no reference to peremptory norms of general international law (*jus cogens*), the existence of which can be regarded as interrelated with the concept of the "common heritage of mankind", as according to Article 311(6) UNCLOS, "*States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind outlined in Article 136 and that they shall not be a party to any agreement in derogation thereof*". [4]

[4] United Nations Convention on the Law of the Sea of 10 December 1982, Article 311(6). Hereafter: LOSC.

Chapter 1: Maritime Zones

1.1. Introduction to Maritime Zones

As Tanaka stated in his book "*The International Law of the Sea*", the ocean as a subject of the LoS is one single unit and is essentially characterized by the continuity of marine spaces. [5]

One of the foundations of the LOSC is to regulate the coastal states' rights over marine areas within and beyond their national jurisdiction, permitting the establishment of several maritime zones, which freely and naturally communicate with each other. According to the LOSC, the ocean is divided into seven different zones, namely: 1) Internal Waters, 2) Territorial Sea, 3) Contiguous Zone, 4) Continental Shelf (CS), 5) Exclusive Economic Zone (EEZ), 6) High Seas, and 7) the Area, as can be also seen in the adjacent figure.

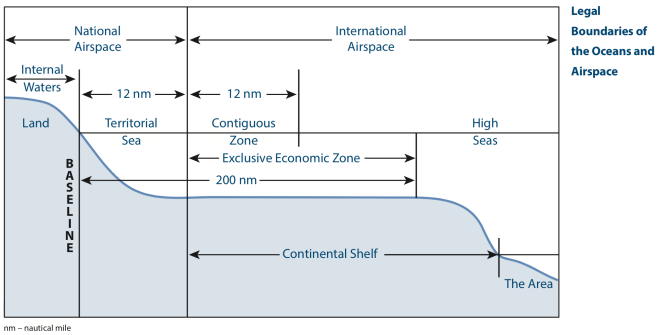

Figure 1.1.: Maritime Zones Schematic

(Source: sites.tufts.edu).

The above-mentioned maritime zones can be categorized into those that fall under national jurisdiction and those that are beyond national jurisdiction. More specifically, internal waters, territorial sea, the contiguous zone, the EEZ, and the CS belong to the former category, while the high seas and the Area belong to the latter. The main characteristics of each maritime zone are described in the following analysis.

1.2. Maritime Zones Categories

(I) Maritime Zones that fall under National Jurisdiction

1.2.1. Internal Waters

According to Article 8(1) of the LOSC, internal waters are considered "those waters which lie landward of the baseline from which the territorial sea is measured". [6] From this general

[5] From *The International Law of the Sea* (p.5), by Y. Tanaka, 2012, Cambridge University Press.

[6] LOSC, Article 8(1).

definition, the internal waters of the archipelagic states are excluded, as they are subject to Part IV of the Convention. It is clear from the above-mentioned provision that internal waters include only the maritime areas between the coast and the baseline of the territorial sea, namely historic bays, ports, harbors, estuaries, etc. From a geographical perspective, internal waters include waters within the land territory, such as rivers or lakes, which according to the LoS are not regarded as internal waters. As far as its legal status is concerned, according to Article 2(1) UNCLOS, "the sovereignty of a coastal State extends, beyond its land territory and internal waters…". [7] The internal waters are regarded as equivalent to the land territory and therefore the coastal state enjoys full sovereignty over those waters, exercising even criminal jurisdiction (with the only exception, under Article 8(2) UNCLOS, the application of the right of innocent passage in some areas, where the internal waters have been newly enclosed by straight baselines). The said right stems from the coastal state's jurisdiction over its land territory. Hence, its full jurisdiction extends to the seabed and the subsoil, as well as the airspace above those waters. The direct effect of this legal regime is that any activity within the internal waters, such as fishing or marine scientific research, is subject to the legislation of the territorial state but with increasingly important interventions of general international law, namely UNCLOS, and special contracts.

One of the most important issues it is pertinent to shed light on is related to the ports and to what extent the foreign vessels have access rights to them. This issue is not regulated with special rules by the LOSC, but by the "*Convention and Statute on the International Regime of Maritime Ports*" of 1923, the provisions of which are applied only to foreign vessels that sail under the flag of a contracting party. Nonetheless, the LOSC does not contest the legislative competence of the coastal state to regulate, with national rules, the access of foreign vessels to its harbors [Article 25(2) UNCLOS]. According to the international theory, it has been suggested that the coastal states are obliged, in the first place, to have their ports open to international navigation and to close them only for security reasons or when their vital national interests are at stake. It should be noted that ships can enter ports or internal waters of another state only in case a treaty between the flag state and the coastal state has been conceded (i.e., bilateral treaties of "Friendship, Commerce and Navigation"), with the only exception being when the ships are in distress or human life is at risk. In this case, the ships enjoy immunity from certain local laws, which are breached by reasons of *force majeure*. [8] The generally accepted state practice for the right of foreign merchant ships to enter another state's ports has not been crystallized into customary international law, but it is based mostly on the goodwill of the states.

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[7] *Ibid.,* Article 2(1).

[8] From 'Ships in Distress', by J. E. Noyes, p. 5, para. 24.

There are also granted to the coastal state, both the right to establish particular requirements to prevent maritime pollution from vessels entered into its ports under Article 211(3) UNCLOS and special enforcement rights over foreign vessels that have polluted the marine environment, while they were on other maritime zones and before their entrance into the internal waters.

After the end of the internal waters, the maritime zones start to be measured and are defined based on the way the coastal states perceive the baselines. A coastal state might opt for the normal baseline or the straight baselines (bay closure). [9]

The reference to the internal maritime waters in this research is highly important. While this belt of water is considered indisputable for the most part and is regarded as the less conflictual maritime zone, parts of the internal waters of some states, such as Canada and Russia, have been disputed for decades. More recently, with the opening of new passageways, especially in the Arctic region, where this research is focused, this issue has started to loom larger as it is further analyzed in Chapter 6 below. Moreover, the "historic usage" of a maritime area renders it under the full sovereignty of a coastal state. This is illustrative in the case of Canada with respect to the Northwest Passage (NWP), where the indigenous people have long enjoyed exclusive benefits without protests from third states.

1.2.2. Territorial Waters

Territorial waters (or territorial sea) of a coastal state is the maritime zone that extends beyond its land territory and internal waters (in the case of an archipelagic state, its archipelagic waters) and over which the coastal state enjoys full jurisdiction. The territorial sea includes the water column, the seabed, the subsoil as well as the air space superjacent to these waters. [10] According to Article 3 UNCLOS, each coastal state has the right to define the width of its territorial sea up to the maximum width of 12 nm, measured from baselines. [11]

Each coastal state shall declare the width of its territorial sea and the baselines from which is measured. This declaration can become unilaterally, without the conclusion of an agreement with other coastal states. However, the coastal state shall inform the UN Secretary-General of the breadth it has fixed for the said zone, so for the rest of the coastal states be notified of its activities to avoid the expression of future objections on their behalf. Even if a state has not

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[9] As stipulated in Article 5 LOSC: Normal baselines are defined as "*the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State*", while Article 7 allows a coastal State to draw straight baselines in place of or in combination with normal baselines, provided that "*the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity*".

[10] LOSC, Article 2(1).

[11] *Ibid.*, Article 3.

declared a territorial sea, it is considered that it has a three-mile width, as there is the possibility that around its coasts there are reefs for which each state should inform the UN and the international maritime organizations. It is noteworthy that some states reiterate their objections to another state's breadth of the territorial sea, like the case of Turkiye against Greece (persistent objector doctrine).

The breadth of the territorial sea was a hot-button issue between the coastal states since the Hague Conference in 1930 and during the subsequent UN Conferences until 1982. Hence, there were serious differences between the positions of the states regarding the desired width of the territorial sea throughout the historical development of the LoS, due to repeated failed efforts to establish a uniform width of this zone. The right to 12 nm territorial waters stems both from customary law and from UNCLOS III. No state, even if it is not contractually bound to the UNCLOS, is entitled to establish a larger breadth of the territorial sea, although, even today, a small number of states (e.g., El Salvador, Peru, and Somalia) continue to claim territorial waters of 200 nm, without this being, of course, recognized by the international community.

On the other hand, the establishment of a shorter width of the territorial sea by a coastal state does not imply that it is not allowed to settle for less or that it loses its right to extend it later on. Still, the majority of coastal states have opted for a 12-mile territorial zone, while traditionally the outer limit was set at three nm over a long period. The maritime states were proponents of the narrower width of the territorial sea and opposed a great extension, as they supported the freedom of navigation that is assured on the high seas. However, the three-mile rule was not adopted by the Conference, due to the strong demands for a wider extent by many newly established states. The less developed states that claimed wider territorial zones aimed to secure their fishery interests, excluding foreign fishing vessels from their coastal areas, while the advanced fishing states considered the wider extent of the territorial sea as a hindrance to other coastal states' fishing rights in offshore areas. Nevertheless, over time, even the latter started to accept the 12-mile limit to compete on equal terms with other maritime states in terms of the exploitation of marine resources.

As it was mentioned above, the coastal state enjoys full and exclusive sovereignty over its territorial sea. This sovereignty is full as it is not limited to certain activities or rights but includes complete jurisdiction (legislative, judicial, and executive) on the full range of issues unless international law provides otherwise. From this point of view, the sovereignty that a state exercises in the territorial sea is similar to that of the land territory, as is the case with the internal waters.

The right of innocent passage

The jurisdiction of the coastal state is restricted by special provisions of the 1982 LOSC and in particular by the well-known regime of "innocent passage" of foreign vessels through the territorial waters, which shall be exercised without the previous consent of the coastal state. The innocent passage, being one of the most recognized rules of customary international law since the *1949 Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v Albania),* is a necessary regime for the smooth operation of international navigation. It arose through a compromise between two trends: the trend for broader freedom of navigation, on the one side, and the trend of the coastal states to extend their jurisdiction to wider maritime zones, on the other side.

Moreover, as for the definition of innocent passage, it should be noted that passage means navigation, namely the movement of the ship without stopping. As a matter of fact, according to Article 18(2) UNCLOS: "the passage shall be continuous and expeditious while stopping and anchoring is permitted, but only in so far as the same are incidental to ordinary navigation or are rendered necessary by *force majeure* or distress or to assist persons, ships or aircraft in danger or distress". [12] Further, the passage is defined as innocent "so long as it is not prejudicial to the peace, good order or security of the coastal State" [13], with the foreign vessels being, hence, obliged to abstain from the threat or use of force, as well as from fishing activities without the conclusion of a relevant bilateral or multilateral treaty. Moreover, the right of innocent passage applies to all ships' categories (commercial, private, governmental ships, warships), though it is still obscure in the international customary law whether the said right applies also to foreign warships. It can be presumed, nonetheless, that innocent passage applies to all ships, including warships, as it is stated in Article 17 UNCLOS which is under the rubric "*Rules Applicable to All Ships*" and from the existence of some provisions in the LOSC that would be pointless if foreign warships were excluded from the right of innocent passage in the territorial sea.

In case, however, a ship infringes the navigation rules, the coastal state is entitled to suspend the passage of the said vessel and order it to exit the territorial waters, to the benefit of its security [Article 25(3) UNCLOS].

Thus, the passage of the foreign vessel through the territorial sea shall be made under the navigation norms and safety requirements. In this context, the ICJ in the *1949 Corfu Channel*

[12] LOSC, Article 18 (2).

[13] *Ibid.*, Article 19.

Case [14] held that the latter depends more on the manner it is carried out rather than its purpose (e.g., political purpose).

The right of transit passage

At the same time, the LOSC introduced a new, autonomous institution to the LoS; "the right of transit passage" concerning the international straits (i.e., waterways connecting two parts of the high seas and are open to international shipping almost without restriction [15]) used for international navigation and sea communication. This new regime was also the result of a compromise between the states supporting that in the case of international straits shall apply the stricter regime of innocent passage and the states proponents of the completely free, unrestricted, passage through them. According to the ICJ judgment in the *1949 Corfu Channel Case*, for the international straits to fall within the scope of the transit passage regime shall connect two sections of the high seas or one part of the high seas and the territorial sea of a foreign state (geographical element) and be used by international navigation (functionality test). According to LOSC, the said passage shall be unimpeded and not be hampered or suspended by coastal states bordering straits not even for security reasons (Article 44 UNCLOS).

1.2.3. Contiguous Zone

Contiguous to the territorial sea, there is a marine space called a contiguous zone, which cannot extend more than 24 nm from the baselines from which the breadth of the territorial sea is measured. Thus, if a coastal state's territorial sea measures 12 nm, the maximum breadth of its contiguous zone will be an additional 12 nm. Under Article 33(1) UNCLOS, in this zone, which, unlike the territorial sea, must be claimed with a legislative act for the state to exercise its powers, the latter exercise control for the prevention and/or punishment of infringements of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea.[16] To these entitlements, the archaeological and historical objects, for which the state undertakes the supervision to maintain them in the seabed, have been added (Article 303 UNCLOS). It may be noted that the archaeological and cultural objects do not belong to the coastal state, but the responsibility for their preservation and their non-unlawful seizure lies with the coastal state in cooperation with UNESCO. In particular, the "coordinating state" is

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[14] From Corfu Channel Case *(United Kingdom of Great Britain and Northern Ireland v Albania)*, Judgment of April 9th, 1949: I.C.J. Reports 1949, p. 30.

[15] From *Who owns the Arctic?*, by J. Worth, 2009, New Internationalist (https://newint.org/features/2009/07/01/sovereignty).

[16] LOSC, Article 33.

responsible for the control of compliance with regulations issued by UNESCO from the states that have ratified the *Convention on the Protection of the Underwater Cultural Heritage* (2001).

The creation of this regime is placed in the 18th century with the issuance of the "*Hovering Acts*" by Great Britain, which permitted British warships to act to combat smuggling and prevent infringements regarding customs legislation on the high seas. Similar was the legislation of the US for the combating of human trafficking, as well as for the punishment of infringements concerning Prohibition in 1935 (*Anti-Smuggling Act*) for all the ships at a distance of 12 nm from the US's coasts. However, as an independent institution, the contiguous zone emerged for the first time at the 1930 Hague Conference and during the UNCLOS I in 1958, the adoption of the said zone over which the coastal state exercises limited functional rights (police-administrative functions) of control and punishment was agreed, without the element of sovereignty or sovereign right. The LOSC does not refer to the legal status of the waters within the contiguous zone, in contrast with the CTS which defined said zone as part of the high seas. This difference is due to the EEZ institution, i.e., if a coastal state claims an EEZ, then the contiguous zone constitutes a part of it, but if the coastal state has not adopted an EEZ, then the said zone usurps part of the high seas. The overlapping of these two zones does not affect, however, the nature of the exercisable rights of the state in each of the zones under question. According to P. Reuter, the contiguous zone would constitute a temporal compromise for the extension of the territorial sea, and thus the institution of the contiguous zone would cease to exist. This, of course, is at odds with the real facts, as the contiguous zone continues to constitute twice the breadth of the territorial sea.

1.2.4. Continental Shelf

The legal regime of the CS is well known for its ambiguity regarding its applicability in comparison with the rest of the maritime zones and constitutes the most hotly disputed territory among the coastal states in the history of the LoS, because of its multifaceted value. Specifically, the coastal states render to the CS great geopolitical significance, and enormous economic potential due to its resource bounty in sedentary fisheries, minerals, and carbon energy resources, as well as perspective for scientific discoveries.

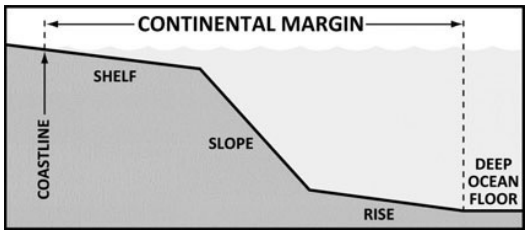

Fig. 1.2. : Simple Representation of the continental margin, consisting of the shelf, the slope, and the rise
(Source: Barry Eakins, National Oceanic and Atmospheric Administration)

The nature of the CS is rather intricate and often contradictory, and for this reason, it should be highlighted the difference between the

"legal" definition of the CS and the physical feature of the seafloor, namely the geological phenomenon of the submerged natural extension of the landmass of the littoral state beneath the surface of the sea that constitutes the seabed. The latter physical feature is called the continental margin and includes the continental shelf (the shallowest part), the continental slope, and the continental rise, where it starts the international seabed area.[17] It is worth mentioning that these parts of the sea are not considered static, as they are affected by various geological phenomena and the repercussions of climate change, such as the ocean level rise.

The pivotal concept of the legal regime of the CS had already emerged, during the '40s, as a result of offshore oil and gas deposits discoveries and the gradual development of the technology for the exploration and exploitation of such resources. The *1942 Treaty between Great Britain, Northern Ireland, and Venezuela* respecting the rich oil fields in the Gulf of Paria is considered the first international accord reached dealing with the division of the CS. [18]

Nevertheless, the official commencement of the doctrine of the CS is the *1945 Truman Proclamation* concerning the delimitation of the CS between the US and the neighboring states, declaring that the natural resources on the seabed and subsoil of the CS, in particular in the Gulf of Mexico, would be under the exclusive jurisdiction and control of the US and in case of confluence with maritime areas controlled by other coastal states the boundaries shall be negotiated and settled between the states concerned in conformity with equitable principles. [19] It is important to note that the US did not claim sovereign rights, but "jurisdiction" and "control" over the naturally appurtenant CS contiguous to its coast. [20] The *Truman Proclamation* triggered a series of similar sovereign claims to the CS by other coastal states, mainly by the Latin American ones, which by nature have a very limited CS, as well as to the superjacent waters and in some cases to the superjacent airspace. These declarations, though, unilaterally adopted, for the most part, were characterized by a lack of uniformity due to the varied national priorities and legislative policies regarding the CS and its resources. Hence, the different approaches coupled with the pronounced objections by other states to the extended sovereign claims did not facilitate the creation of a uniform international practice and subsequently of a norm of customary law at

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[17] From *Δίκαιο της Θάλασσας [The Law of the Sea]*(4th ed., p. 128 &137), by A. Strati & K. Ioannou, 2013, ΝΟΜΙΚΗ ΒΙΒΛΙΟΘΗΚΗ.

[18] From The Continental Shelf (p. 3), by T. McDorman, in D. Rothwell, A. O. Elferink, Scott K. & Stephens T. (Eds.), *The Oxford Handbook of the Law of the Sea*, 2015, Oxford University Press (https://doi.org/jtc4).

[19] Proclamation 2667, by President Truman of 28 September 1945 on Policy of the US with respect to Coastal Fisheries in Certain Areas of the High Seas, 1945 (https://www.gc.noaa.gov/documents/gcil_proc_2667.pdf).

[20] From The Continental Shelf (p.5), by D. Roughton & C. Trehearne, in D. Attard, M. Fitzmaurice, & N. A. Martínez Gutiérrez (Eds.), *The IMLI Manual on International Maritime Law: Volume I: The Law of the Sea,* 2014, Oxford University Press (https://opil.ouplaw.com/view/10.1093/law/9780199683925.001.0001/law-9780199683925-chapter-6?prd=OPIL).

that time but provided the spur to formalize international law in this maritime area. [21] However, by the *Truman Proclamation*, the CS was for the first time treated in legal terms and constituted as a new legal institution.

As far as the rights within the CS are concerned, according to Article 77(1) UNCLOS, the coastal state exercises exclusive sovereign rights over its CS with the aim of (a) exploration and (b) exploitation of natural resources, but not sovereignty. It also exercises some similar entitlements, such as the authorization to build artificial islands, installations, and other structures on the CS, and the establishment of safety zones around them not exceeding a radius of 500 meters (Article 80), of marine scientific research [Article 246(1)], of drilling for all purposes (Article 81) and of the protection and preservation of the marine environment (Article 208). [22] These rights, as it is deduced from Article 77(2) & (3), are exclusive and inherent and exist independently of the presence of a physical continental margin. As was also stated by ICJ's judgment in the *1969 North Sea CS Cases* and the ITLOS's judgment in the *2012 Delimitation of the Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal*, the sovereign rights of the coastal state exist *ipso facto* (automatically) & *ab initio* (existing) by virtue of its sovereignty over the land territory, as it was adopted in Article 76(1). [23] Therefore, a coastal state cannot claim rights over the CS based on historic titles, namely because it is traditionally used to exploit the mineral resources over a given shelf area. Hence, the definition of the CS occupies an important position in customary international law. This means that a coastal state, without expressing a claim, has an adjacent shelf out to 200 nm, and an action of another state cannot deprive a coastal state of its legal CS [Article 77(2)].

Thus, it seems that the littoral state enjoys some kind of legislative and enforcement jurisdiction concerning the exploration and exploitation of natural resources on the CS, although it can be considered "spatially limited jurisdiction", as the sovereign rights over the CS shall not prejudice the legal regime of the superjacent waters and the airspace above. [24] The said limitation is to balance the increasing extension of the rights over the CS with the freedom of navigation. Nevertheless, the question of whether it had been formulated a legal doctrine regarding the CS

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[21] Strati & Ioannou (2013), p. 132.

[22] LOSC, Article 77(1), 80, 81, 208 & 246.

[23] *Ibid.*, Article 76(1): "*The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nm from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance*".

[24] Tanaka (2012), p. 143.

with customary features, binding for all coastal states, was pending until the ICJ's judgment in the *1969 North Sea CS Cases*.

As far as the natural resources of the CS are concerned, these shall be understood as mineral and other non-living resources of the seabed and subsoil, as well as the living organisms belonging to the sedentary species (e.g oysters, pearls, crustaceans, scallops), although the definition of the latter remains contradictory despite their historic roots. [25] In cases where the coastal state has established an EEZ, that state enjoys the sovereign right to explore and exploit all marine living resources on the seabed of the said zone.

Concerning the right of a coastal state to marine scientific research, a distinction should be made between marine scientific research on the CS and the one on the superjacent waters. As long as the coastal state has not adopted an EEZ or its CS extends beyond 200 nm, marine scientific research in the superjacent waters will be exercised as a freedom of the high seas. Hence, the consent of the coastal state is not required for purely scientific research that takes place exclusively in superjacent waters. However, the consent of the coastal state is required for surveys to be carried out in the upper waters but they concern the CS. In practice, many countries, including Greece, for the conduct of marine scientific research on the CS, require either mere notification or prior authorization by the competent authorities, to ensure that such investigations do not infringe the sovereign rights of exploration and exploitation of the natural resources of the CS. These interpretative difficulties are avoided in the event a coastal state establishes an EEZ, extending its jurisdiction to the superjacent waters. Therefore, consent will be required for any scientific research to be carried out on the water column of the EEZ.

Concerning the delimitation of the CS, the provisions of Article 83 UNCLOS are tantamount to the provisions of Article 74 on the delimitation of the EEZ. Thus, under Article 83, the delimitation of the CS between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law in order to achieve an equitable solution. At this point, it should be highlighted that the UNCLOS brought in a new regime of delimitation, i.e., for the coastal states open to oceans the range of the CS is 200 nm (or 350 nm), but when there is geographical narrowness (namely distances between coasts of less than 400 nm), then the delimitation shall take place in agreement with the neighboring states and not unilaterally, to reach an equitable result. Further, the exploitability criterion for the delimitation process was soon revoked, due to technological advancements, and replaced by the establishment of the distance criterion, especially when it comes to the delineation of the outer limits of the CS.

[25] LOSC, Article 77(4).

Importantly enough, as ITLOS has clarified in its judgment concerning the *2012 Bangladesh/ Myanmar Case:* "*the legal regime of the CS has always coexisted with another legal regime in the same area. Initially, that other regime was that of the high seas, and third coastal states were exercising the freedoms of the high seas"*. [26] Within the LOSC, there may also be overlapping entitlements of the EEZ of another coastal state.

1.2.5. Exclusive Economic Zone (EEZ)

The EEZ occupies a maritime area that is lying beyond and adjacent to the territorial sea, and whose breadth does not extend beyond 200 nm from the baselines from which the breadth of the territorial sea is measured. [27] Unlike the CS, the EEZ constitutes a relatively novel zone in the international LoS. Up to the mid-20th century, all the maritime areas beyond the territorial waters were considered parts of the high seas by the international community, over which the coastal states did not enjoy any jurisdiction. Hence, the coastal states enjoyed exclusive fishing rights only within their internal waters and their established territorial zone.

The concept of the EEZ traces its origin to the practice of some Latin American States (i.e., the Governments of Chile, Peru, and Ecuador, joined by Costa Rica later) after 1945, which, due to the lack of a CS in a geological sense and the systematic, industrially organized fishing activity of the US in areas of the Pacific Ocean, outside the territorial waters of the adjacent states of South America, they had been deprived of valuable fish stocks with severe consequences for their economy. As the importance of the control and management of the fish stocks lying in the international waters adjacent to the territorial zone started to be widely perceived and in order to protect the marine environment from economic exploitation, the Pacific Ocean coastal South American States banded together and proposed a new jurisdiction zone ("*zona marítima*"), over the entire sea (and not just the seabed and subsoil), to a great extent (200 nm) from their coasts, granting exclusive fishing rights to the said coastal states to provide the necessary resources for their economic development. [28] The claim for this new zone, which has remained in history as the "*Declaration on the Maritime Zone*" dated August 18, 1952, or "*Santiago Declaration*", aimed to fix the inequity that the geographical position of those states inflicted upon them, and gradually was embraced by the majority of the coastal developing states, including the African ones, becoming the new LoS's cornerstone. Hence, after World War II, a "multiplication of

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[26] Delimitation of the Maritime Boundary in the Bay of Bengal *(Bangladesh/Myanmar),* Judgment, ITLOS Reports 2012, p. 121, para. 475. Hereafter*:* 2012 Bangladesh/Myanmar Case.

[27] LOSC, Article 55 & 57.

[28]Agreements between Chile, Ecuador, and Peru signed at the First Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific (18 August 1952) (or 1952 Santiago Declaration).

unilateral claims" for extending coastal state jurisdiction took place, and this trend continued even strongly in the following twenty years. The South American states and the newly independent states referred to the concept of a "Patrimonial Sea", while the African states and especially the Kenyan delegation that put forward the term EEZ during the debates of the Asian-African Legislative Consultative Committee (AALCC) in 1971 and to the UN Sea-Bed Committee in 1972, spoke about an "economic zone". On the contrary, the maritime powers with distant-water fishing fleets, that during the UNCLOS III provided for the creation of the new institution of the EEZ, proposed the recognition of preferential rights in favor of the coastal state over areas of the high seas adjacent to the territorial zone, showing strong opposition to such Declaration. To give an illustration of this opposition by a major maritime power, in 1954, the US Congress adopted the *Fishermen's Protective Act* to protect and compensate US fishing vessels previously operating off the coasts of foreign countries, namely in areas that were considered by the US to be part of the high seas. [29]

Interestingly enough, the historical turning point of the claims of fishing zones is the *Truman Proclamation 2668*, under the title "*Policy of the United States with respect to coastal fisheries in certain areas of the high seas*" [30], which was declared on the same day with the *1945 Truman Proclamation* concerning the delimitation of the CS between the US and the neighboring states. By this Proclamation, the US government, following the pressing need for the conservation and protection of fishery resources, claimed jurisdiction and rights of control and regulation of the fishing activities over delimitated areas of the high seas, adjacent to the territorial sea and to which traditionally only nationals of the US were fishing. At the same time, it was made clear that the character of the said areas as high seas and the right to their free and unimpeded navigation were in no way affected. In cases in which nationals of other states had developed and maintained such activities on the established conservation zones, the Proclamation provided for the conclusion of agreements between the interested parties, such as the *1952 Santiago Declaration* mentioned above.

Regarding the breadth of the EEZ, it normally extends up to 200 nm from its coastal baselines and if the maximum breadth of the territorial zone (12 nm) is taken into account, then the EEZ as such is 188 nm. Thus, there is little doubt that the concept of the EEZ is closely interrelated to the distance criterion which serves as the legal title over the EEZ. For a coastal state to exercise jurisdiction within the EEZ, it must expressly declare this zone and announce its action to the

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[29] From "The Fishermen's Protective Act: A Case Study in Contemporary Legal Strategy of the United States," by T. Meron, 1975, *The American Journal of International Law, 69(2),* p. 290 (https://doi.org/crg8dh).

[30] Proclamation 2668, by President Truman of 28 September 1945 on Policy of the US with respect to Coastal Fisheries in Certain Areas of the High Seas, 1945 (https://www.presidency.ucsb.edu/documents/proclamation-2668-policy-the-united-states-with-respect-coastal-fisheries-certain-areas).

Secretary-General of the UN. In cases of geographical narrowness, i.e., where the coastal baselines of adjacent or opposite states are at a distance smaller than 400 nm (200 nm +200 nm) and thus their EEZs overlap, the exception to the above rule of 200 nm is applied. Accordingly, under the Convention, a delimitation agreement should be concluded between the parties involved to delineate the actual boundary (Article 74 UNCLOS).

Moreover, Article 59 introduces the basis for conflict resolution provided the LOSC does not attribute rights or jurisdiction to the coastal states or third states within the EEZ. This legal basis is the equity method in tandem with considering all the relevant circumstances. [31]

It is important to note that EEZ emerges as a *sui generis* zone, a compromise between freedom and sovereignty, as it is neither part of the high seas, as it had been proposed by the maritime powers, nor its regime is identified with the sovereign status of the territorial waters, but it can be described as a transitional zone between these two regimes. Its "special legal regime" is considered purely functional as it includes, on the one hand, a range of rights (sovereign and jurisdictional rights) reserved to the coastal state and on the other freedoms of flag states. To this end, within the EEZ third coastal states enjoy the right to exercise only the freedoms subject to the relevant provisions of the LOSC and concern navigation, overflight, laying of submarine cables and pipelines, and other lawful uses of the sea related to these freedoms, although in a more limited way than the freedoms of the high seas, specified in the Convention of the High Seas (CHS). Nevertheless, fishing is excluded from the freedoms granted to third coastal states within the EEZ, as it is reserved for the jurisdiction of the coastal state.

As far as the rights of the coastal state within the EEZ are concerned, under Article 56 UNCLOS, can be classified into two categories as follows: (1) sovereign rights to explore and exploit the EEZ resources, living and non-living, of the water column and the seabed and its subsoil, as well as sovereign rights for the economic exploration and exploitation of the currents, winds and the energy production from those waters; (2) jurisdictional rights over non-resource activities, namely regarding the protection and conservation of the marine environment against pollution, the marine scientific research and the establishment, use, and monitoring of man-made structures, such as artificial islands and other installations. [32] For instance, in case the government of a coastal state intends to establish offshore wind farms or to exploit renewable energy (e.g. tidal and wave energy), it should have previously proclaimed an EEZ. For the protection of the rights of the coastal state, the LOSC provides "due regard" to them.[33]

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[31] LOSC, Article 59.

[32] *Ibid.*, Article 56 (1).

[33] *Ibid.*, Article 58 (1) & (3).

The LOSC establishes three main principles concerning the living resources, over which the coastal state enjoys exclusive sovereign rights: (a) the obligation of conservation of the living resources, by determining the total allowable catch (TAC) for any stock within the EEZ, (b) the obligation of the optimum utilization of the living resources, by determining its capacity to harvest them and (c) the obligation to protect the living resources, by taking all the necessary measures to ensure the proper conservation and development of the fish stocks. [34] More concretely, the coastal state takes all the protective measures to avoid any risk of a decrease in the population of harvested species caused by over-exploitation.

When it comes to non-living resources, these include mineral resources, mainly oil and natural gas, as well as hydrates, hydrothermal vents, and mud volcanoes, among others. The content of the rights reserved to the coastal state over such resources in the EEZ is considered to be identical to the respective content of the rights that exercises over the CS.

The above-mentioned rights, though, are limited in scope compared to full territorial sovereignty, given that they serve specific economic purposes. For that reason, they differ from the sovereign rights of the CS doctrine, which exist *ipso facto & ab initio.* It can be said that the coastal state's rights over the EEZ extend to all ocean strata, from the surface to the seabed. However, if the last sentence of Article 56 is taken into account, it is made clear that the sovereign rights of the coastal state in the seabed and subsoil of the EEZ concerning the non-living resources are subject to Part VI of the LOSC, namely to the provisions of the CS. [35] However, whichever correspondence exists between the content of the sovereign rights exercised over the EEZ's seabed and subsoil on the one hand and these of the CSs on the other, it does not imply that the two zones are identical, as neither the CS absorbs the EEZ nor vice versa, and there is not a full coincidence of these two zones. Consequently, it is necessary to decouple the meaning of the CS from that of the EEZ, stating that the coastal state's rights to the CS do not affect the legal status of the superjacent waters or the air space above those waters. [36]

Regarding the establishment of man-made structures, the coastal state is entitled to exercise exclusive jurisdiction over them, concerning customs, tax, health, safety, and immigration laws and regulations, to ensure, among others, safer navigation or protection of such constructions. Hence, the LOSC imposes on the coastal state the duty to provide "due notice" of its constructions and dismantle all abandoned and disused structures, paying at the same time "due regard" to the fishing activities, the environment, and the rights of other states. To this end, the

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[34] *Ibid.*, Article 61 (1),(2) & 62 (1),(2).

[35] *Ibid.*, Article 56 (3).

[36] *Ibid.*, Article 78(1).

coastal state can also establish reasonable safety zones around such artificial structures not exceeding a radius of 500 meters. [37] On the contrary, the powers of the coastal state over oil, gas, or renewable energy platforms have raised serious concerns regarding their protection and their environmental impact, as it is demonstrated through two noteworthy examples of irreparable damage to the environment. [38]

In addition to the provisions concerning the construction of structures, the coastal state is accorded jurisdictional rights for marine scientific research with its explicit consent being necessary for the conduct of research projects by other states or international organizations within the EEZ. By and large, exists a moral duty, which is introduced by Article 246 UNCLOS for the coastal states to grant their consent in cases where marine research intends to increase scientific knowledge to the benefit of mankind and is conducted for peaceful purposes. As a matter of fact, in this kind of research, consent should not be denied or delayed unreasonably. On the other hand, the coastal states may at their discretion refuse their consent in a broad spectrum of research projects, such as in cases of bioprospecting activities or hydrographic surveying. [39]

In addition to the functional powers, the coastal state, under Article 73, is entitled to exercise enforcement and coercive powers over foreign vessels that have violated Article 58(3), such as boarding, inspection, arrest, seizure, prosecution of foreign ships and their crews and judicial proceedings to ensure compliance of the flag states with laws and regulations of the coastal state.[40] Of course, the principle of reasonableness should be applied depending on the gravity of the violation. The LOSC, decidedly, amplified such interference on vessels flying a foreign flag on the EEZ for combating illegal fishing and pollution without the previous consent of the flag state.

Be that as it may, from the latter it can be deduced that although at first glance exists a sort of equilibrium between the rights of the coastal state and the freedoms of third states by the mutual obligation of due account to the rights and duties imposed to both sides, the situation is only apparently balanced if the enforcement powers of the coastal state in the said area are taken into account. These measures, therefore, shift the balance in favor of the coastal state, whose functional sovereignty is limited only by the traditional freedoms of the high seas applicable to the EEZ. Thus, the legal nature of the EEZ, regarding the practical implementation of the rights

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[37] *Ibid.,* Article 60 (2), (3) & (4).

[38] See the Arctic Sunrise Award *(Kingdom of the Netherlands v Russian Federation)* and the Deepwater Horizon oil spill in the Gulf of Mexico (https://www.itlos.org/en/main/cases/list-of-cases/case-no-22/ & (https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill).

[39] LOSC, Article 246(3) & (5).

[40] *Ibid.,* Article 73(1).

of the coastal state, can be better described as a regime of territoriality rather than a regime of freedom. The world experiences an ever-increasing pressure of creeping jurisdiction, i.e., the spatial extension of national jurisdiction over matters that do not necessarily fall within the rights of the coastal states, particularly of the EEZ regime beyond 200 nm. In such a way, the freedom of navigation of foreign vessels is even more restricted for purposes of security and protection of the marine environment, rendering almost every inch of the ocean space subject to coastal state jurisdiction. Consequently, the most likely scenario for the future entails the risk of promoting the "territorialization" of the EEZ.

(II)Maritime Zones that Fall Beyond National Jurisdiction

1.2.6. High Seas

The high seas are a marine space, together with the Area, beyond the limits of the national jurisdiction of the coastal states. Thus, under the LOSC, the high seas "apply to all parts of the sea that are not included in the EEZ, the territorial sea or the internal waters of a state or the archipelagic waters of an archipelagic State". [41] The high seas regime includes the superjacent waters and the respective air space. As far as the seabed and the subsoil of the high seas are concerned, these fall within the CS regime of the given coastal state or within the Area, in cases where the CS extends beyond the limit of 200 nm. This is obvious if it is taken into account that Article 86 UNCLOS endorses a "negative" determination of the high seas, as it denotes the objective scope of the relevant provisions to the marine spaces that fall outside the sovereign rights of the coastal states. The "negative" shape in question resides, on the one side, in the fact that the LOSC does not refer to the exact breadth of the territorial sea of each coastal state, and on the other, as it is mentioned below, in that the width of the high seas depends, in each case, on whether the coastal state has proceeded or not in the adoption of an EEZ.

It is important to note that the term "high seas" cannot be defined geographically but is a purely legal concept, which historically has developed in contradiction to the territorial waters. More concretely, the marine spaces that did not constitute part of the territorial waters were considered high seas, where the freedom of navigation and fishing was dominant and guaranteed by international law, and national sovereignty was precluded. The said perception started to disseminate during the mid-20th century when the extended claims of the coastal states for wider exclusive fishery zones (EFZs) were capable of restricting geographically the "free zones", namely those marine zones not subject to the national jurisdiction by then. Even further, the

[41] LOSC, Article 86.

gradual adoption of the EEZs and the emergence of the trend for international ocean governance beyond national jurisdiction to become a conventional rule limited, even more, the scope of this regime. Hence, the legal contemporary concept of the high seas, which at some point constituted by far the bulk of the global sea area, applies to relatively more restricted marine spaces. The successive restrictions the regime of the high seas has experienced are not related only to its width but also to the traditional principle of freedom in the sea.

In this respect, special reference shall be made to the crucial modification brought about by the LOSC concerning the international seabed. More concretely, the concept of the high seas has assumed the form of a new *res communis,* the common heritage of mankind. Therefore, the absence of sovereignty with which the high seas was once described, now has been substituted by the triptych: sovereignty/sovereign rights of the coastal states — joint exploitation — freedom of navigation. As the forefather of modern international law, Hugo Grotius, advocated in his magnum opus, "*Mare Liberum"*, the sea space, except for a belt of sea adjacent to the coasts, and thus subject to national jurisdiction, is *res communis usus.* It is pertinent to note here that the social needs of a specific period may be reflected in the establishment of an international principle. In this respect, during the 17th century and until 1945, when a readjustment of the circumstances took place, the liberal approach of the unimpeded sea movement was dominating, and thus the legal order of the high seas regime, namely that of the freedom of navigation was maintained almost unaffected. Thus, despite the gradual narrowing of the high seas areas, the principle of freedom has not altered essentially and "is still identified as a foundational principle in modern law". [42]

At this point, the two paradigms dominating in the LoS shall be mentioned, i.e., a) the Law of the divided oceans (Paradigm I), which hinges on the Westphalian conception of international law underlying the assurance of state sovereignty, and b) the Law of our common ocean (Paradigm II), which rests on the international community that shares common values or interests ("*res communis usus*"). The latter conception aims to safeguard the common interests of the international community at sea, by providing a legal framework for ensuring international cooperation in maritime affairs. These paradigms are reflected respectively in the diverse opinions of the two great jurists, John Shelden, who in his magnum opus, *Mare Clausum* ("the closed sea") advocated in favor of legal supremacy over the seas, and Hugo Grotius, who, as underlined above, asserts that sea cannot be occupied by anyone. In the era of the 17th century, it was suggested that the intermediate position that the coastal state could exercise some jurisdiction over parts of the high

[42] From "Discussion on Due Regard in the United Nations Convention on the Law of the Sea", by Z. Guobin, 2014. *China Oceans Law Review, 2014(20)*, p. 74 (https://heinonline.org/HOL/LandingPage?handle=hein.journals/cholr2014&div=36&id=&page=).

seas (imperium) without this implying the possession of this part of the sea (dominium), was inconceivable.

International waters are governed by the principle of freedom, which was established in the early 19th century. Article 87 UNCLOS recognizes, *inter alia*, six freedoms: freedom of navigation, freedom of overflight, freedom to lay submarine pipelines and cables, freedom of fisheries, freedom to construct artificial islands and other installations, and freedom of scientific research. The latter two constitute an add-on to Article 87 UNCLOS. The concept of freedom implies that no part of the high seas is subject to state sovereignty, nor is possible to be obtained in any way (e.g., occupation). This rule is explicitly codified in Article 89 UNCLOS, i.e., "No State may validly purport to subject any part of the high seas to its sovereignty", which implies that the high seas are not considered *res nullius*. As a corollary, as Article 87(1) stipulates, the absence of such sovereignty presupposes the capability of all states to exploit the high seas on equal terms in conformity with international law. [43]

Of course, these freedoms are not unlimited as for their exercise the maritime rights and legitimate interests of the other coastal states shall be taken into consideration. Thus, the obligatory consideration of the third states' interests, whilst exercising their UNCLOS-endorsed rights and freedoms in the respective marine zones, implies that the necessary balance ("due regard") shall be mutually respected so that the exercise of freedom by one state not to pose a hindrance to others to exercise their freedom respectively [Article 87(2]. The principle of due regard is not limited to the high seas but extends to provisions on maritime zones that fall within the state's (exclusive) jurisdiction, like the territorial waters, the EEZ, and the CS. Even though the notion of due regard does not provide specific guidelines to the states, apart maybe from "appropriateness", consisting of "the weighing of the actual interests involved in each case, to ensure their reasonable conduct, the coastal states shall avoid acting in a way capable of adversely impacts other states to enjoy the same or other freedoms.

With this in mind, it is not suggested that the high seas are an unregulated area without a centralized governing authority to refer to. On the contrary, there are limits and a legal order, which is ensured by the notion of the exclusive flag-state jurisdiction (Article 92 UNCLOS) to which all the naval ships are subject. Specifically, the coastal states are empowered to exercise jurisdiction, both enforcement and legislative, only over their ships sailing under their flags. In this respect, if a naval vessel infringes the national legislation of its flag state or the provisions of international law/LoS, only the warships or the governmental ships flying its flag are entitled to exercise their jurisdiction over them, by suspending the passage of the suspicious vessel and proceeding in repressive acts, to ensure safety at sea.

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[43] LOSC, Article 87(1): "*The high seas are open to all States, whether coastal or land-locked*".

There are of course some well-established exceptions from the principle of flag state jurisdiction, permitting the universal (criminal) exercise of power in extreme cases of committing "international" crimes, such as piracy, slave trade, genocide, and illicit traffic in narcotics, among others. Under these circumstances, states shall cooperate in combating and repressing such illegal activities and maintain legal order. This is explicitly reflected in Article 88, where it is stated that "the high seas shall be reserved for peaceful purposes". [44]

Piracy

Special reference shall be made to the widely recognized international criminal offense of piracy, particularly the piracy off the Somali coast (i.e., the Gulf of Aden), as it is regarded as a crime that jeopardizes international navigation and the international legal order in the effort of seizing international freight. It is, thus, excluded from the jurisdiction of the flag state and its prosecution can justify the intervention of any state. Notwithstanding the scant reference made to piracy incidents, recently this phenomenon has extended globally from the Asian region to the seas of Western and South Africa, and especially to the Gulf of Guinea, where the pirates target oil thefts from the tankers rather than the crew hostage and the ransom payments as it was the case in Somalia. Indeed, the high levels of piracy activity, especially in the Gulf of Aden and in the Indian Ocean, have led to the undermining of the safety of the Suez Canal, one of the busiest and most important sea lanes worldwide.

The key problem with this phenomenon is that the incidents are made public long after their occurrence. To this end, Article 100 UNCLOS explicitly obliges all states to cooperate to suppress piratical activities, while the UN has proceeded in the creation of international prevention mechanisms and the International Maritime Organization (IMO) seeks to promote regional cooperation for the addressing of this discordant with the international law phenomenon, which is traditionally regarded as *hostis humani generis.* To this end, between 2008-2016, NATO in close cooperation with other international counter-piracy actors helped to fight against piracy and increase the general level of security in the region, through military operations, and until today remains engaged in this effort. [45]

However, despite the considerable efforts to combat piracy lately, the threat of piracy continues to affect shipping traffic, although the cost of piracy corresponds only to about 0,1% of world

[44] *Ibid.,* Article 88.

[45] From *Counter-piracy operations (2008-2016),* 2022, NATO (https://www.nato.int/cps/en/natolive/topics_48815.htm).

trade by value. [46] To this end, large shipping companies have started to reconsider diverting their routes toward safer shipping lanes, such as those crossing the Arctic (see Chapter 6), albeit this means, at least for the time being, higher transit fees and increased safety risk due to the unique threats presented at the ice-laden navigational areas. By exploring new routes, shipping companies will, at the same time, avoid those waterways which are highly congested, reducing by this means, the shipping cost. The sea lanes through the Arctic would, therefore, represent an alternative to the traditional maritime routes around the Horn of Africa and the choke points of Southeast Asia, like the Suez Canal or the Malacca Straits [47], without excluding, of course, the potential for maritime surveillance capabilities in the region to provide safer navigation and emergency response, already implemented by the European Commission together with the European Space Agency.

Noticeably, several piracy incidents occur not only on the high seas (*piracy jure gentium*) but also in the territorial sea, where the consent of the coastal state is required both for the prosecution and detention of pirates. In addition, there is a call from the UN Security Council to all states "to criminalize piracy under their domestic law […]" [48], and encompass in their national legislation regulations and reasonable procedures wider but not inconsistent with the provisions of international human rights law.

The right of hot pursuit

The coastal state has the right of hot pursuit of a foreign vessel on the high seas, following a violation of the laws and regulations committed within maritime spaces subject to the national jurisdiction of the pursuing state, namely within the internal waters, the territorial sea, or even within the contiguous zone of the said state. This principle was incorporated into Article 111 UNCLOS, while it was established around the end of the 19th and the beginning of the 20th century, particularly for the effective repression of foreign ships that violated the US Prohibition laws outside the territorial zone of three nm. Mostly, the hot pursuit occurs in cases of illegal fishing activities on territorial waters. The competent authorities of the coastal state can commence the hot pursuit of a foreign vessel either from the territorial sea or even if the warship

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[46] From "Η κοινωνικοοικονομική και περιβαλλοντική βιωσιμότητα του Northern Sea Route – Σύγκριση με το Σουέζ [The socioeconomic and environmental sustainability of the Northern Sea Route-Comparison with the Suez Canal]" (Master thesis, University of Piraeus, Greece), by M. Karakosta, 2016, p. 62 (https://dione.lib.unipi.gr/xmlui/handle/unipi/9569).

[47] From The Future of Arctic Shipping Along the Transpolar Sea Route (p. 283), by M. Humpert & A. Raspotnik, 2012, *Arctic Yearbook 2012,* p. 296 (https://arcticyearbook.com/images/yearbook/2012/Scholarly_Papers/14.Humpert_and_Raspotnik.pdf).

[48] From UN Security Council Resolution 1976 (2011)[on acts of piracy and armed robbery at sea off the coast of Somalia], S/RES/1976 11 April 2011, para. 13, (https://digitallibrary.un.org/record/700839).

of the coastal state sails on the high seas. Under Article 111(1) UNCLOS, if the foreign vessel ventures into the contiguous zone, the pursuit may only be undertaken for violations of rights for the protection of which this zone was established. This principle applies also *mutatis mutandis* to violations of the laws and regulations of the littoral state in the EEZ or the CS, including safety zones around CS installations for exploration and exploitation of the natural wealth of the seabed. [49] This right ceases once the foreign vessel enters the territorial sea of its flag or a third state and provided that the suspicions against the foreign vessel are not valid, the pursuant state is obliged to compensate the ship for every loss or damage sustained as a result of its detention.

Treaty of the High Seas (Biodiversity Beyond National Jurisdiction (BBNJ) Agreement)

It shall be highlighted that the flag-state is primarily subject to exclusive flag-state jurisdiction, i.e., to certain obligations to comply with the legal ocean order. Thus, its actions shall be under a combination of national and international laws and regulations. According to Article 94 UNCLOS, the flag-state is required to exercise effectively its control and jurisdiction regarding technical, administrative, and social matters over vessels flying its flag, to ensure the security of the seas and the protection of the marine environment. An important issue that still has not been addressed effectively is the pollution stemming from the ships, both from their normal operation (e.g., petrol-powered engines) and from waste disposal, but also their cargo and naval incidents. Further, unlike the areas within states' jurisdictions that are regulated through UNCLOS and national legislation, the areas beyond national jurisdiction" (ABNJs) remain largely ungoverned, and currently, only around 1% of the high seas is highly protected, a fact that raises serious concerns about the ocean's health. [50]

The shaping of an environmental policy at a global and/or regional level and the establishment of legally binding instruments and standards to prevent marine pollution stemming, among others, from oil and gas activities should be the principal objectives of the modern LoS, as the environmental protection measures constitute a prerequisite for the economic and social development of the coastal states.

In this concept, lately, global and regional progress has been made in concluding agreements on enhancing the alertness of and the cooperation among states to combat marine pollution incidents and manage marine biodiversity, but to date, no single agreement addressing biodiversity on the high seas as a whole existed. To this end, a new Treaty for the protection of the High Seas (*BBNJ*

[49] LOSC, Article 111(2).

[50] From *The Biodiversity Beyond National Jurisdiction Agreement (Treaty of the High Seas)*, by C. K. Bitonti, 2022, Congressional Research Service (CRS) (https://sgp.fas.org/crs/misc/IF12283.pdf).

Agreement), which constitutes an international legally binding instrument (ILBI) under the UNCLOS, was concluded on March 4, 2023, after hard-fought negotiations and a ten-year development process, to "ensure the conservation and sustainable use of marine biological diversity of ABNJs for present and future generations". [51] It constitutes a historic agreement, being, among others, a victory for multilateralism, taking into account the small number of multilaterally negotiated agreements within the UN. The High Ambition Coalition (HAC) on BBNJ was launched on February 11, 2022, at the One Ocean Summit, with its main focus being to establish a network of marine protected areas (MPAs). The *HAC Declaration* was considered the first step towards protecting MPAs on the high seas, but not an ambitious one, as more decisive and bold actions, are required to confront the reality of climate change and reverse the poor governance and health decline of the ocean. At this point, it is important to highlight that there are ABNJs in the Arctic region, and it seems that albeit the *BBNJ Agreement* will constitute a global instrument, it will have a clear projection in the Arctic. By the same token, the Arctic states, in order to build on this agreement, have to formulate a holistic mechanism for more effective governance of their regional maritime areas.

This future-proof High Seas Treaty, consisting of five sessions of the Intergovernmental Conference on Marine Biodiversity of ABNJs (IGC-5) convened by the UN General Assembly in September 2018, March – April 2019, August 2019, March 2022, and February-March 2023 respectively, when signed and ratified by the member states, will constitute the third agreement under UNCLOS to regulate activities in the high seas and at the best, it will be considered an incremental evolution of the LoS. The Treaty will be also critical to meet the global targets agreed upon in the UN Biodiversity Conference (COP15) in December 2022, i.e., the commitment to protect 30% of the world's oceans and coastal areas by 2030, a target that was included in the *Kunming-Montreal Global Biodiversity Framework* (known also as 30x30 goal) with the view to reversing biodiversity loss and restoring ecosystems. [52] Notwithstanding that "the ship has reached the shore," as was stated by the President of the last IGC, Rena Lee, much work ahead is needed, especially to address the technicalities of the text, in order to safeguard a healthy and climate-resilient ocean. [53]

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[51] From *Protecting the Ocean: Time for Action: High Ambition Coalition on Biodiversity Beyond National Jurisdiction*, by the European Commission, 2022, Directorate-General for Maritime Affairs and Fisheries (https://ec.europa.eu/oceans-and-fisheries/ocean/international-ocean-governance/protecting-ocean-time-action_en).

[52] From *UN conference concludes with 'historic' deal to protect a third of the world's biodiversity*, 2022, United Nations News (https://news.un.org/en/story/2022/12/1131837).

[53] From '*The Ship Has Reached the Shore', President Announces, as Intergovernmental Conference Concludes Historic New Maritime Biodiversity Treaty* [Press Release], 2023, United Nations; General Assembly (https://press.un.org/en/2023/sea2175.doc.htm).

1.2.7. The Area

Before analyzing the regime of the international seabed, it should be made a distinction between the geographical and the legal dimension of the "seabed". In this vein, from a geographical perspective, the seabed is defined as the ocean floor and subsoil lying beneath the surface of the sea. From a legal perspective, though, the seabed is divided into those parts of the sea lying or likely to fall within or outside the national sovereignty of the coastal states or any kind of sovereignty. [54] What matters here, however, is this part of the seabed that lies beyond the outer limit of the CS and is known as the deep seabed or the Area, and under Article 1(1) UNCLOS contains the seabed (ocean floor and subsoil) beyond the limits of the national jurisdiction. [55]

While, as has already been noted, each coastal state enjoys the right to define, unanimously or by agreement, with its adjacent/opposite states (depending on the *unicum* of each case), the breadth of its CS or its EEZ, it cannot claim exclusive jurisdiction over parts of the Area, which starts where the national jurisdiction under the regime of the CS or EEZ terminates. There is only a reservation, i.e., if the CS of a coastal state extends beyond 200 nm, then the Commission on the Limits of the Continental Shelf (CLCS) may make recommendations to the coastal state for the way the outer limit of the CS shall be defined (see section 2.6). Be that as it may, the exact geographical definition of the international seabed Area cannot be determined precisely, unless all the coastal states, including the non-parties to the LOSC, complete the long-lasting procedure for the establishment of the outer limits of their national jurisdiction, which for the time being is considered a rather ambitious scenario.

The initiative for the international regulation of the regime for the international seabed, which until the mid-60s was under the regime of the freedom of the high seas, was launched in 1970, at the Maltese Ambassador's, Dr. Arvid Pardo, instigation. In this vein, the UN General Assembly, following the adoption of Resolution 2749 (XXV) of December 17, 1970, by a vast majority, declared that the part of the seabed lying beyond the national jurisdiction and its resources constitute a "common heritage of the mankind" (*Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction,* known also as *1970 Declaration*). [56] Interestingly enough, the use of the term "common heritage of mankind" appeared for the first time in the official documents of the UN through the above-

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[54] Strati & Ioannou (2013), p. 244.

[55] LOSC, Article 1(1).

[56] See Resolution 2749 (XXV) of 17 December 1970 (Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction*)* (un-documents.net/a25r2749.htm).

mentioned Resolution and constitutes one of the most important elements of the new LoS, becoming the cardinal principle governing the Area. This principle consists of three legal elements; the non-appropriation both of the Area and its natural resources [Article 137(1) UNCLOS], the benefit of mankind as a whole [Article 140(1) UNCLOS], and the use of the Area for peaceful purposes (Article 141 UNCLOS).

The concept of the "common heritage of mankind" was incorporated into the LOSC with Article 136 UNCLOS, while Article 140 specifies the legal consequences arising from the activities carried out there, namely the *benefit of mankind as a whole*. [57] The legal framework of the Area ensuring the equitable sharing of the seabed mineral resources was yet to be determined, as the application of the two traditional principles to the deep seabed, namely the principle of freedom and the principle of sovereignty, was rejected in the *1970 Declaration*.

It was therefore noticed that it was unlikely for the legal regime of the Area to be discussed, without having defined precisely the outer limits of the CS, which are "moveable" and can reach unrealistic limits, due to the development of technology and the creeping jurisdiction of some coastal states, covering even the ocean floor. The main idea that prevailed during the negotiations of UNCLOS III was that in the aforesaid area, the distribution of the ocean wealth to all the states would be realized proportionally to their needs. It should be mentioned that the above Declaration, given the prevalence of the fear of the radical development and progress of new techniques by the technologically advanced states, would alter the existing situation and the seabed/ocean floor beyond the limits of the national jurisdiction would be subject to a national concession and use. Subsequently, this was likely to end up both in the militarization of the ocean floor, accessible through the establishment of military installations, leading to arms races, and in the overexploitation of the seabed resources to the detriment of mankind.

The LOSC defined at its most contentious part (Part XI) the regime governing the Area and provided for an intricate exploitation system of the mineral resources. It is of particular interest to mention that objections raised by the major industrialized states, including the US, as a potential investor, claiming that the provisions of Part XI of the LOSC were liable to prejudice their interests and the provided protection guarantees were insufficient, resulting in their non-ratification of the LOSC. Those objections rose following the attempts of the developing countries (the Group of 77) to shape a regime where the technologically advanced states would be excluded from the deep seabed activities, including access to deep-sea mineral resources. Under this regime, the developing states sought to reap all the benefits from their participation and control over all activities in the Area, through an established entity acting on behalf of the international community. Thus, the industrialized powers put forward the idea of a different

[57] LOSC, Article 140 (1).

mechanism, namely a central licensing system, enforced by an international body and consisting in granting states and other entities the authorization to explore and exploit the resource deposits of the Area, also characterized as a "free-for-all but first-come-first-serve scenario". [58] This regime, in turn, would give a privileged position to the developed states, as it was about to mainly favor the already technologically advanced states regarding the deep-sea mining activities, limiting, if not excluding, most developing states from access to similar economic ventures. Nonetheless, none of these two regimes was adopted, as each of them constituted a unitary system under the control either of international machinery or of the states and, hence, a compromise solution was reached known as the "parallel system".

More concretely, an effort led by the US was made to modify significantly the provisions of the relevant Part XI of the LOSC. The long-standing procedure resulted, in 1994, in the *Implementation Agreement* (also known as the *New York Convention*). From a legal perspective, the said Agreement complements the 1982 UNCLOS, and all the parties to the latter, were invited to ratify it separately, with its main objective being to set out the key principles of the international deep seabed regime. According to Article 2(1) of the aforesaid Agreement, in the event of any inconsistency between the 1994 Agreement and Part XI, the provisions of the former shall prevail. [59] As a corollary, an intermediate solution was adopted, known as the "parallel system" combining the two aforementioned approaches, and was eventually embodied in the modified Part XI of the LOSC.

As far as the mineral resources of the deep seabed are concerned, it may be noted that already by the late 19th century, polymetallic (or manganese) nodules were discovered especially in the Arctic region. These minerals' economic and commercial significance is vital for humanity, as they contain mainly nickel, copper, cobalt, manganese, calcium, etc., and even diamonds. Consequently, during the '60s and '70s, the exploration and exploitation of the deep seabed attracted increasing interest. Even though the start-up costs were prohibitive, it gradually became a viable commercial activity. It became clear that the LOSC adopted an exploitation system that exclusively concerns hard mineral resources, including the polymetallic nodules, which lie *in situ* in the Area. These resources, as long as the Area as a whole, "constitute a new kind of *res communis*, being unlike for the states to claim appropriation or exercise any right or jurisdiction

[58] From The Enterprise: State of affairs, challenges and way forward, by K. Willaert, 2021, *Marine Policy, 131* (https://doi.org/gj63zg).

[59] Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, Article 2(1).

over any part of the Area", as they have designated under UNCLOS as the common heritage of all humanity. [60]

(I) The Authority

For the conduct of the Area's activities, the LOSC provided that they will be carried out by way of a gatekeeper, by a specific mechanism, which was founded by the Convention in 1994 for this purpose and is known as "the International Seabed Authority" (the Authority/ISA). This mechanism operates under the auspices of the UN with a complex institutional framework, permitting the exploration and exploitation of mineral wealth to the benefit of mankind. Of course, in conformity with Articles 135 & 142 UNCLOS, the prospecting and exploitation of the resource deposits in the deep seabed should impede neither the freedom of navigation on the superjacent waters or the airspace above those waters (spatially limited jurisdiction) nor the legitimate interests and rights of the coastal states, to which actors in the Area shall pay due regard when the conduct of the activities concern marine areas or resources lying within national jurisdiction, while the prior consent of the coastal state concerned is also required.

Among the main staples of the ISA, which, as of June 2022, comprises 167 states and the European Union [61], and is led by the principle of "common heritage of mankind," is to ensure "the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis". [62] More concretely, the organization, authorization, supervision, and control over all the activities conducted in the Area, by states, state enterprises, and natural or legal persons, are vested in the Authority. In this respect, the Authority shall, among others, provide for the effective protection of the marine environment from harmful effects, promote marine scientific research, and implement mechanisms of capacity-building that encourage the transfer of technology to developing states. It is also responsible for legislative enactments, complementing and implementing the provisions of the LOSC and its Annexes relating to activities in the Area. [63] To this end, according to Article 176 UNCLOS, the Authority has an international legal personality and the legal capacity to accomplish its functions and purposes. It can, therefore, be said that it is vested with some

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[60] LOSC, Article 137(1).

[61] From *Ensuring the Sustainable Management and Stewardship of the Deep Seabed and its Resources for the Benefit of the Humankind* (Annual Report 2022, p. 9), by Secretariat of the ISA, 2022 (https://isa.org.jm/files/2022-07/AR2022/ISA_Annual_Report_2022_ENG.pdf).

[62] LOSC, Article 140 (2).

[63] From "New Type of Intergovernmental Organisation: The International Seabed Authority," by L. Caflisch, 1983, *Philippine Yearbook of International Law, 9*, p.1.

supranational elements as far as the legislative field is concerned, like some other intergovernmental organizations, as it is directly involved in industrial and commercial activities.[64] As far as the funding of the Authority is concerned, this is essentially based on a system of contributions (trust funds and voluntary funds), which come mainly from its members and its operations.

Under Articles 156(2) and 158(1), the Jamaica-based Authority has the egalitarian structure of an international organization in which participate all parties to the LOSC and comprises three principal organs, namely the Assembly (supreme organ), the Council (executive body) and a Secretariat. It should be mentioned that the supremacy of the Assembly, although it is the sole plenary body establishing the general policies of the Authority over any question or matter within its competence [Article 160(1)], is regarded to be more theoretical than factual. On the contrary, taking into account the role and powers of the Council, which comprises 36 members of the Authority and establishes "the specific policies pursued by the Authority" [Article 162(1)], it can be said that is more predominant and decisive than that of the Assembly, and, in the future, it will play a dominant role within the ISA. In addition to the principal organs, the LOSC itself, under Article 163, provides for the establishment of two subsidiary bodies of the Council, namely the Legal and Technical Commission and the Economic Planning Commission, which are not currently operational.

(II) The Enterprise

Discussing the structure of the Authority, special reference shall be made to the Enterprise, which, when established, will be the "operational arm" of the ISA, i.e., neither a principal nor a subsidiary organ. The creation of this unique organ was evolutionary and was rendered necessary, due to the direct involvement of the ISA in industrial and commercial activities. In the context of its autonomous operation, on the one hand, it is entitled to carry out production activities in the Area, chiefly in reserved areas through joint ventures with other commercial operators. On the other hand, the transportation, processing, and marketing of minerals recovered from the Area, on behalf of all members of the ISA, fall also within the scope of the Enterprise [Articles 158(2) & 170(1) UNCLOS]. In particular, the US's enterprises cannot participate in the joint ventures due to their non-ratification of the LOSC, while, in the meantime, pleading for accession to the UNCLOS, to seize control of areas with rich minerals, and because the extraction of respected minerals can take place in mines within their territory.

[64] *Ibid.*, p. 9.

The Enterprise, as the autonomous organ of the ISA, for the conduct of the aforesaid activities, possesses the legal capacity necessary for the unimpeded performance of its duties and the fulfillment of its objectives, operating under "sound commercial principles" and respecting the rules included in the LOSC, the *1994 Implementation Agreement*, and the Authority's regulations.[65] Nonetheless, because of its independent function, it cannot be held liable for the acts or obligations of the Authority, and reversely. [66]

The Enterprise is intended to promote and facilitate the effective participation of developing states in deep seabed mining, as it can carry out such mining activities in the reserved areas in association with them. [67] Furthermore, as it has been observed by the African group in the Authority, the Enterprise is the only mechanism by which the vast majority of developing states can actively involve through joint ventures in the deep-sea mining activities in the Area and reap benefits from them.

The autonomous nature of the Enterprise was downgraded from its advantageous position given to it under 1982 UNCLOS, by the *1994 Agreement*, to becoming a part of the Secretariat of the Authority and taking away any preferential treatment as the obligations of the other contractors shall apply *mutatis mutandis* to the Enterprise under section 2(4) of the Agreement. Therefore, the process of the operationalization of the Enterprise, which is still ambiguous due to uncertainties regarding financial and technical requirements, shall be promoted as it is considered a vital element toward the effective implementation of the principle of the "common heritage of mankind" [Article 140(1)]. Should the Enterprise not become operational, the developed and technologically advanced states and companies will solely reserve the valuable mineral resources likely to be extracted from the Area.

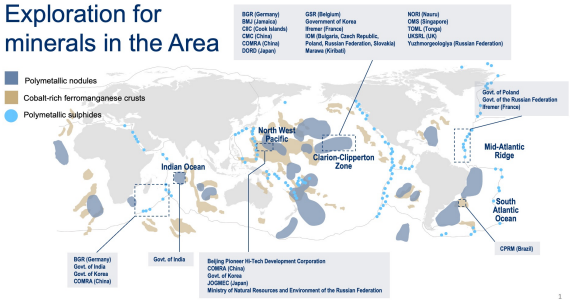

Fig. 1.3: Exploration Areas under ISA (Source: International Seabed Authority)

Although the Enterprise is still non-operational, according to the latest data of the Authority, since 2001, it has entered into 15-year contracts for exploration of minerals, such as polymetallic nodules and sulphides and cobalt-rich ferromanganese crusts in the deep seabed in the Clarion-

[65] See LOSC, Article 170(2), Articles 1(2)-(3) & 13(2).

[66] *Ibid.*, Annex IV Article 2(2)-(3).

[67] *Ibid.*, Article 148.

Clipperton Zone, the Indian Ocean, the Western Pacific Ocean, and the Mid-Atlantic Ridge, among other areas (see above graphic). [68]

The Authority has so far sold 31 exploration licenses to nationally owned entities and private companies, one of which pertains to the small Pacific Island nation of Nauru, through the wholly owned subsidiary of Canada-based "The Metals Company" (former DeepGreen), Nauru Ocean Resources Inc. (NORI), to authorize the beginning of mining operations setting to ISA a two-year deadline ("two-year rule") to complete the exploitation rules, regulations, and procedures. [69]

Overall, it is pertinent to note that the emerging industry of deep-sea mining considers those metals necessary for a global transition away from fossil fuels, claiming that harvesting them from the deep seafloor constitutes a more environmentally friendly and ethical alternative than land-based mining. To this end, ISA, through its last Strategic Plan adopted by the Assembly, tries to make a meaningful contribution towards the implementation of 12 of the 17 UN Sustainable Development Goals (SDGs). [70] However, there is an inherent contradiction in the organization, as the financial and corporate interests to promote the development of those minerals prevail, while there is a lack of transparency regarding funding for the mining operations and the monetary profits of the minerals for the benefit of mankind are not assured for the time being.

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[68] From *Exploration areas,* by ISA, (n.d.) (https://www.isa.org.jm/minerals/exploration-areas).

[69] From *The Obscure Organization Powering a Race to Mine the Bottom of the Seas,* by A. B. Roach, 2021, PassBlue. (https://www.passblue.com/2021/11/08/the-obscure-organization-powering-a-race-to-mine-the-bottom-of-the-seas/).

[70] From *Ensuring the Sustainable Management and Stewardship of the Deep Seabed and its Resources for the Benefit of the Humankind* (Annual Report 2022, p. 8), by Secretariat of the ISA, 2022 (https://isa.org.jm/files/2022-07/AR2022/ISA_Annual_Report_2022_ENG.pdf).

Chapter 2: Delimitation of Maritime Boundaries: Setting the stage

2.1. The concept of maritime delimitation

After having referred to the several jurisdictional zones within and beyond the national jurisdiction, it is of utmost importance to understand that coastal states, in the pursuit of determining the spatial extent of their jurisdiction, in the vast majority of the cases, have to deal with overlapping issues. In this case, the question that arises is how to delimit the overlapping marine spaces with one or more coastal states in such a way as to avoid maritime disputes.

Each coastal state shall define, under its national legislation, the limits of the marine spaces surrounding its coasts until the maximum allowable extension of jurisdiction as enshrined in the UNCLOS's provisions. By this means, not only are its competencies over the respective maritime spaces established, but it also gives due publicity regarding the geographical limits of such competence to the third states. In addition, the establishment of the outer limits (see section 2.5.), mainly of the CS, does not typically generate problems, especially in case the geographical position of the state permits the exhaustion of the maximum seaward limit of a jurisdictional zone without creating overlaps with the respective zones of neighboring coastal states. [71] If the geographical location (e.g., in cases of geographical narrowness) does not permit this, then the said delimitation takes place under the delimitation process based on international law.

More specifically, maritime delimitation can be defined as the process of allocating overlapping areas that the states concerned legitimately claim based on an existing relationship with the disputed marine areas [72], with the ultimate objective of reaching an equitable result, and can be carried out, as it will be further discussed below, either through the conclusion of an international agreement among the states parties or through dispute settlement mechanisms. Interestingly, the delimitations of the territorial sea at the end of the 19th century were the first in the history of maritime boundary delimitation resulting from the first but unsuccessful attempt to codify delimitation rules and norms at the Hague Conference in 1930. This attempt was followed by the CS's delimitation, after the creation of the said institution in 1945. The first rules and norms governing the delimitation process were established with the 1958 Geneva Conventions, succeeded by the broad state practice and by the rich, albeit contradictory, jurisdiction of the ICJ and other arbitral tribunals. [73]

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[71] Strati & Ioannou (2013), p. 279.

[72] From Equitable Principles of maritime boundary delimitation: The Quest for Distributive Justice in International Law, by T. Cottier, 2016, *British Yearbook of International Law, 86(1)*, p. 203-206 (https://doi.org/jzbh).

[73] Strati & Ioannou (2013), p. 279-280.

The risks maritime delimitation issues entail, underscore the noteworthiness of this process. Be that as it may, it has been further stated that "nowadays, the potential political and security risks of boundary disputes are high, and unresolved maritime boundaries between states may easily affect bilateral relations or even international peace and security". [74]

Even though the establishment of maritime "limits" by a coastal state is by its nature a *unilateral act* consisting in drawing lines that define the maritime spaces of a single state, maritime delimitation has always had an international dimension, as it is a process to be effected by agreement between states concerned. [75] This was emphasized, in the first place, by the *1951 Fisheries Case (United Kingdom v. Norway),* in which the judgment of the ICJ referred to the interaction between national and international law regarding maritime delimitation issues, stating that "[…] a*lthough the act of delimitation is necessarily a unilateral act because only the coastal State is competent to undertake it, the validity of the delimitation with regard to other States depends upon international law".* [76] Accordingly, the ad hoc Chamber of the ICJ in the *1984 Case Concerning the Delimitation of the Maritime Boundary in the Gulf of Maine Area* emphasized this point by stating that:

"No maritime delimitation between States with opposite or adjacent coasts may be effected unilaterally by one of those States. Such delimitation must be sought and effected by means of an agreement, following negotiations conducted in good faith and with the genuine intention of achieving a positive result. Where, however, such agreement cannot be achieved, delimitation should be effected by recourse to a third party possessing the necessary competence". [77]

Consequently, the reference to the term "agreement" implies the international character of maritime delimitation, which by nature is international [78], and as an agreement of such a nature, it is governed by the principle *res inter alios acta* as stipulated under Article 34 of the 1969

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[74] From "Maritime Boundaries Delimitation, Management, and Dispute Resolution: Delimitation of the Mozambique Maritime Boundaries with Neighbouring States (Including the Extended Continental Shelf) and the Management of Ocean Issues,", by E. B. Jamine, 2006-7, Division for Ocean Affairs and the Law of the Sea; The Nippon Foundation of Japan, p. 2 (https://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/jamine_0607_mozambique.pdf).

[75] Tanaka (2012), p.187.

[76] Fisheries case *(United Kingdom v. Norway)*, Judgment of December 18th, 1951: I.C.J. Rep. 1951, p. 132.

[77] Delimitation of the Maritime Boundary in the Gulf of Maine Area *(Canada v. United States of America)*, Judgment, I.C.J. Rep. 1984, p. 299, para.112. Hereafter: 1984 Gulf of Maine Case.

[78] See supra note 75.

Vienna Convention on the Law of Treaties (VCLT), i.e., does not create either obligations or rights for a third state without its consent. [79]

Moreover, it is pertinent to mention that maritime delimitation does not imply the occupation of maritime spaces, but instead, by delimiting these spaces the coastal states define the exact seaward limits of spaces that already belong to them, as it occurs mainly with the CS institution whose consequential sovereign rights, as it has already mentioned, exist *ipso facto & ab initio* for the coastal states, even in cases of undelimited maritime areas. The latter was affirmed by the *1969 North Sea CS Cases* (see further below), stating that *"delimitation is a process which involves establishing the boundaries of an area already, in principle, appertaining to the coastal State and not the determination de novo of such an area"* and highlighting the difference between the equitable manner of delimitation and the just and equitable share of a previously undelimited area. [80] Therefore, the role of the Court, when it comes to maritime delimitation, is to adjust the boundaries rather than determine them from scratch.

2.2.The delimitation of the CS and the EEZ

It is expedient to focus on that the provisions of Article 74 UNCLOS concerning the rules governing the delimitation of the EEZ are identical to those of Article 83 concerning the respective rules governing the delimitation of the CS, which, moreover, have been negotiated as a single subject during UNCLOS III. As such, Articles 74(1) and 83(1) provide for the following:

The delimitation of the exclusive economic zone [the continental shelf] between States with opposite and adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution. [81]

These two identically worded provisions specify the three fundamental components of the basic delimitation rule for the CS/EEZ among adjacent or opposite coastal states, i.e., delimitation by agreement, delimitation under international law, and "equitable delimitation". [82] To be more specific, the obligation of achieving the CS/EEZ delimitation by agreement among the states concerned implies that, where the CS claims among neighboring states overlap, the delimitation cannot be concluded by a unilateral act of either of the coastal states, but, instead, the coastal

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[79] Vienna Convention on the Law of Treaties, 1969, Article 34. Hereafter: VCLT.

[80] North Sea Continental Shelf *(Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, Judgment, I.C.J. Rep, 1969, p. 23, para. 18. Hereafter: 1969 North Sea Continental Shelf (CS) Cases.

[81] LOSC, Articles 74(1) & 83(1).

[82] Strati & Ioannou (2013), p. 316.

states are obliged to negotiate in a meaningful way and under the *bona fide* (good faith) principle, avoiding persisting upon their positions "without contemplating any modification of it". [83] In other words, the coastal states are under the obligation to conduct negotiations with good faith and not to adopt unchanged and entrenched positions during the negotiation process, since this conduct is in breach of an international obligation of the state. [84] In effect, the reference to the obligation of the agreement brings a general principle of international law, i.e., the principle of good faith that governs inter-state relations, to the delimitation domain. Further, the second element introduces all the conventional and customary provisions into the delimitation process, "legitimizing" the application of maritime delimitation customary law as developed by international jurisprudence. Meanwhile, the methodological "priority" of the equidistance principle, albeit with the *1969 North Sea CS Cases* ceased to be a principle and became merely one method among others [85], and the likelihood of a relevant customary norm to be established is preserved. However, the notion of equitable principles is not included in the legal substance of the provision and, therefore, the equitable solution shall be effected through the application of the rule of law and not with the indefinite application of equitable principles. Moreover, the said provisions of UNCLOS, concerning the outcome of the negotiations and the application of international law, provide for the achievement of an equitable result, albeit the wording seems meaningless in principle. In any case, however, within the framework of these two Articles, the production of such a result simply underscores the objective to which the delimitation efforts shall conclude and which shall be achieved *infra legem*. Be that as it may, according to the ICJ judgment in the *2001 Case Concerning Maritime Delimitation and Territorial Questions Between Qatar and Bahrain,* the delimitation principles, as stipulated in Articles 15, 74 & 83, reflect rules of customary law, and, therefore, even non-parties to the LOSC are bound by them.[86]

From the latter analysis, it can be concluded that delimitation by agreement constitutes the fundamental rule of international law. [87] Nonetheless, where there is no agreement among the

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[83] See 1969 North Sea Continental Shelf Cases, p. 47, para. 85(a).

[84] See LOSC, Article 300, and VCLT, Article 27.

[85] From "Delimitation of Maritime Boundaries between Adjacent States," by N. Dundua, 2006-7, United Nations; The Nippon Foundation of Japan, p.17 (https://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/dundua_0607_georgia.pdf).

[86] See Maritime Delimitation and Territorial Questions between Qatar and Bahrain (*Qatar v. Bahrain)*, Merits, Judgment, I.C.J. Reports 2001, p. 83, para. 139. Hereafter: 2001 Qatar/Bahrain Case & Territorial and Maritime Dispute *(Nicaragua v. Colombia)*, Judgment, I.C.J. Reports 2012, p. 674, para. 139.

[87] See Dundua (2006-7), p. 3 & *A Practitioner's Guide to Maritime Boundary Delimitation* (p. 24), by S. Fietta & R. Cleverly, 2016, Oxford University Press (https://opil.ouplaw.com/display/10.1093/law/9780199657476.001.0001/law-9780199657476).

states parties, the ICJ applies certain rules of international law to determine how the delimitation will take place. Specifically, in conformity with Articles 74(2) & 83(2), provided there is no settlement within a reasonable period between the states concerned, they shall recourse to the procedures provided for in Part XV concerning the peaceful settlement of disputes. To this end, the coastal states are, under Article 287 UNCLOS, entitled to opt for one or more of the four dispute settlement procedures regarding the interpretation and application of the LOSC, i.e., ITLOS, ICJ, and (special) arbitral tribunals, such as the Permanent Court of Arbitration (PCA), to settle the delimitation of their maritime boundaries. The dispute-resolution mechanism is, thereby, inherent in the LOSC, unlike mechanisms for the settlement of disputes deriving from other international treaties that are incorporated into a separate protocol.

Nevertheless, in cases where states parties choose to reject, by declaration, the jurisdiction of one or more of the four dispute-resolution bodies concerning the delimitation of the territorial waters, CS, and EEZ, under Article 298 (1)(a)(i), the LOSC provides for the submission of the matter to conciliation, the result of which, however, is not binding for both parties.

In addition, in conformity with Articles 83(3) and 74(3), the state parties, pending agreement, are under the obligation to refrain from unilateral acts that entail the risk of irreversible damage to the other party's rights over the disputed area of the CS/EEZ. [88] Instead, they shall act in a spirit of understanding and cooperation to enter into provisional arrangements of a practical nature, without these being explicitly defined, and without jeopardizing or hampering the reaching of the final agreement. [89]

2.3. The notion of the Single Maritime Boundary (SMB)

After the emergence of the EEZ doctrine and due to its close relationship with the doctrine of the CS, the formation of an agreement through the drawing of a "single maritime boundary" (SMB) for zones beyond the territorial sea, namely the single delimitation of the EEZ and the CS, became a more common state practice. By the same token, in conformity with the Court's jurisprudence, the CS delimitation line tends to coincide with the EEZ delimitation line and vice versa. It is of particular interest to mention that in the recent state practice, in the majority of the delimitation agreements within 200 nm, the states concerned recourse to the adoption of an SMB, for the sake of the simplicity and convenience of this method to divide their maritime zones beyond the territorial waters.

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[88] LOSC, Article 74(3) & 83(3).

[89] *Ibid.*

The notion of the SMB was interpreted for the first time by the ICJ jurisprudence in the 1984 Gulf of Maine Case, where the Chamber of the Court was asked to delimit a single line both for the CS and the 200 nm EFZ. Accordingly, in the same judgment, the Court in formulating its opinion on the delimitation of a single line stated that "a *delimitation by a single line, can only be carried out by the application of a criterion, or combination of criteria, which does not give preferential treatment to one of these two objects to the detriment of the other, and at the same time is such as to be equally suitable to the division of either of them*". [90]

Moreover, the Court in the 2001 Qatar/Bahrain Case declares that "*the concept of an SMB does not stem from multilateral treaty law but from State practice and that it finds its explanation in the wish of States to establish one uninterrupted boundary line delimiting the various - partially coincident - zones of maritime jurisdiction appertaining to them*". [91] Be that as it may, the said notion is about a "multi-purpose maritime boundary" since the concept of the SMB refers to the single delimitation of the EEZ and the CS. Of course, it is expedient to note that in the case of drawing an SMB in overlapping areas, not all rules of maritime delimitation are applied but only those in common for all marine spaces under delimitation. [92]

Several judges in the *1982 Case Concerning the Continental Shelf (Tunisia/Libya Case)* based their support on the single line on grounds related to the increased absorption of the CS concept into that of the EEZ for practical motives. Indeed, proponents of the notion of the SMB point to the parallelism and inter-relation between the EEZ and the CS up to 200 nm as stipulated in Articles 74 & 83 UNCLOS, concerning the delimitation process of the respective zones, which seems to be identical, as it has already mentioned. On the contrary, opponents of the unity of delimitation base their argument on the separate development of the two legal regimes in the course of the history of the LoS and on the fact that the newer concept of the EEZ has not modified the former concept, which thus remains intact. [93]

At this point, it is pertinent to note that UNCLOS does not contain any provision for the drawing of an SMB concept but, at the same time, there is no rule in customary or conventional law, which prohibits the use of such a delimitation method for different maritime spaces. [94] Accordingly, the Chamber of the Court in the 1984 Gulf of Maine Case stated that "*there is*

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[90] 1984 Gulf of Maine Case, p. 32, para. 194.

[91] 2001 Qatar/Bahrain Case, p. 93, para. 173.

[92] Strati & Ioannou (2013), p. 284, para. 985.

[93] Dundua (2006-7), p. 38.

[94] *Ibid.*

certainly no rule in international law to the contrary, and, in the present case there is no material impossibility in drawing the boundary of this kind." [95]

2.4. Basic Methods Applicable to Maritime Boundary Delimitation

Since the UNCLOS I negotiations, a concrete terminology with a notably technical character has started to be shaped regarding maritime delimitation. However, the compromise formula for the delimitation was produced during UNCLOS III and incorporated into the new LOSC in 1982. The background was the multilateral disagreement during negotiations between the two conflicting groups, i.e., the supporters of the median line (equidistance principle) as the primary delimitation rule, along with the special circumstances as an exception, and those who advocated that the delimitation should be governed by the doctrine of equitable principles, taking into account all the relevant circumstances of the area to be delimited. [96] The said formula, albeit vague, seems to be practicable. At this point, it is expedient to note that if there was one prescribed delimitation method, it would generate inequitable results in many cases. To this end, the coastal states are free during the negotiation process to agree on the method/methods that they consider to be equitable for them. [97] The applicability of key principles and methods which are analyzed below is fundamental for the maritime delimitation between coastal states. These are the principles of equity, equidistance/median line, and sector line (meridians). In essence, it has been concluded that the equitable principles/relevant circumstances method, identified in the seminal *1969 North Sea CS Cases*, and the equidistance/special circumstances method, identified in the CCS, share a common objective, i.e., to achieve an equitable solution.

Other methods are also applicable to boundary delimitation, such as perpendicular lines, enclaving (i.e., giving full, half, or no effect to the islands), and parallel lines (corridor), albeit not so widely used by the Court's jurisdiction. Moreover, according to the ICJ judgment in the *1984 Gulf of Maine Case*, given the *unicum* of each case and the eventual achievement of reaching an equitable delimitation, a combination of delimitation methods is promoted, since that is required from the geographical particularities of the relevant area.

2.4.1. Equidistance principle/Median line

With the 1958 Geneva Conventions, the equidistance principle was established as the basic method of delimitation in the absence of an agreement, historical title, or other special

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[95] 1984 Gulf of Maine Case, p. 267, para.27.

[96] From *The Law of the Sea*, (3rd ed., p. 191), by R. R. Churchill & A. V. Lowe, 1999, Manchester University Press.

[97] Dundua (2006-7), p. 13.

circumstances [98], as it was considered a safe, geometrical method. As a "geometrically objective" method, it is used, as it will be analyzed below, as a first step in the so-called three-step approach of the delimitation process, before the application of the more subjective subsequent phases. [99] However, in the UNCLOS the strict application of this method was maintained, for the most part, only in respect of the delimitation of the territorial sea (Article 15 UNCLOS).

It should be noted that although the wording of Articles 6(1) and 2 of the CCS gives the impression that the median line and the equidistance principle constitute two different methods of maritime delimitation, they are one sole principle, i.e., the equidistance principle. It is merely implemented differently in the case of states with adjacent (equidistant line) or opposite coasts (median line).

According to the 1958 CTS and CCS, the median line shall be understood as "*the line every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each of the two States is measured"*. [100] By drawing up a median line, the coastal states share the sea or subsea area lying *inter se*.

It should be noted that typically there are three applications of the equidistance line, i.e., the strict equidistant line, which takes into account all coastal base points allowed under international law, the simplified equidistant line with a limited number of base points to be taken into account, and the adjusted/modified equidistance, which alters the effect of certain geographical features, such as base points, low-tide elevations, rocks, and islands. [101] The former two applications are deemed to lead to complex and unpractical results in many cases. [102]

At this point, it would be expedient to refer to the relationship between the elements of "equidistance" and that of "special circumstances", whose combination emerged as the most pertinent method to effectuate delimitations. If there is a hierarchy between these two concepts, then equidistance is the principle, while special circumstances, whose consideration intends to the avoidance of inequitable results from the pure application of the strict equidistance line, are the exception to the rule. In contrast provided that there is no hierarchy in those elements,

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[98] 1958 Geneva Convention on the Territorial Sea and Contiguous Zone, Article 12 and 1958 Geneva Convention on the Continental Shelf, Article 6. Hereafter: Article 12 CTS & Article 6 CCS.

[99] Fietta & Cleverly (2016), p. 55.

[100] Article 12 CTS & Article 6 CCS.

[101] From Handbook on the Delimitation of Maritime Boundaries (No. E.01.V2, pp. 48-50), by United Nations, 2000, Division for Ocean Affairs and the Law of the Sea Office of Legal Affairs (https://doi.org/10.18356/cc72cd88-en).

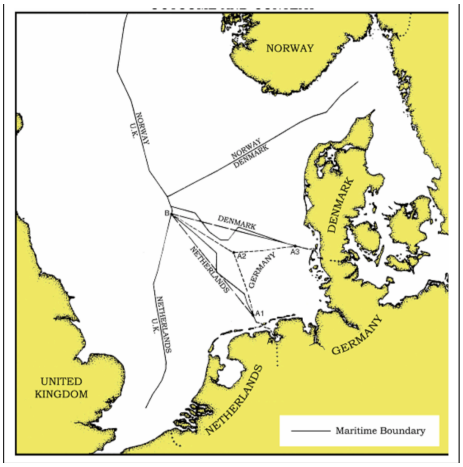
[102] *Ibid.,* p. 48.

equidistance, and special circumstances can be touted as one combined delimitation rule. [103] Be that as it may, as a result of the jurisprudence, it can be seen that the equidistance line is used as the starting point in the delimitation process.

Further analysis of the demolition of the equidistance method is provided below, together with the emergence of the equidistance/special circumstances concept.

2.4.1.1. The demolition of the equidistance principle with the 1969 North Sea Continental Shelf Cases

The decision of the ICJ on the *1969 North Sea CS Cases* constitutes a landmark regarding the evolution of the institution of the CS and the development of modern jurisprudence in the field of maritime delimitation. [104] The case has its origin in the special agreement that was signed between three adjacent states, Denmark, the Netherlands, and the Federal Republic of Germany (FRG), to request from the ICJ the delimitation of their CS in the North Sea. As it was somewhat vague what rules and principles had to be applied to their dispute, the parties asked the ICJ to decide "*what principles and rules of international law are applicable to the delimitation as between the Parties of the areas of the continental shelf in the North Sea which appertain to each of them*". [105]



Map 2.4.1.: The Maritime Boundary of the 1969 North Sea Continental Shelf Cases
(Source: Durham University)

The problem of Article 6 CCS [106] captured the attention of the ICJ in the said case regarding the force of the Article's content as customary law. What matters here is that the rule of the equidistance/special circumstances as far as the CS is concerned was addressed, for the first time, by the present decision.

Specifically, Denmark and the Netherlands, possessing convex coasts, were in favor of the application of the equidistance/special circumstances principle and alleged that provided that such circumstances had not been established, they should have

[103] Tanaka (2012), p.189.

[104] Tanaka(2012), p. 192.

[105] 1969 North Sea Continental Shelf Cases, p.7, Article 1 (1).

[106] 1958 CCS, Article 6 (2): "*Where the same continental shelf is adjacent to the territories of two adjacent States, the boundary of the continental shelf shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary shall be determined by application of the principle of equidistance from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured*".

recourse to an equidistance-based line. [107] On the contrary, the FRG, whose coast is considered concave, claimed a more equitable result.

The argumentation of Denmark and the Netherlands was premised on the assumption that the equidistance principle, independently of the contractual arrangement as early as 1958, was regarded already (in 1969) as customary law. On the contrary, the FRG was of the view that it should be attributed *"a just and equitable share of the CS, proportionate to the length of its coastline or sea-frontage"* [108], denying the application of the Geneva Convention and expressing the concern that the application of an equidistance line would leave it with an extremely small part of the North Sea CS. At this point, it should be highlighted that the CCS was ratified by the Netherlands and Denmark but not by the FRG, and, thus, the latter was not legally bound by the provisions of Article 6 CCS.

Along similar lines, the parties opposed the importance of the concept of "natural prolongation" of the CS during the delimitation process, which until then was deemed crucial in questions concerning delimitation. [109] Accordingly, in the subsequent ICJ's jurisdiction, the Court indicated that natural prolongation "*would not necessarily be sufficient, or even appropriate, in itself to determine the precise extent of the rights"* between adjacent states [110] , diminishing, by this means, its relevance as a factor in the boundary delimitation proceedings. Contrariwise, the distance criterion replaced natural prolongation and was established as the legal basis governing the entitlement to both the EEZ and the CS within 200 nm. [111] However, it remains to be seen whether the said concept will re-emerge as an important element in the delimitation of the CS beyond 200 nm, given several factors that militate against such a restoration.

The ICJ rejected the main allegations of the parties concluding that, as opposed to the state practice, the equidistance principle does not constitute customary law, albeit mentioning that "*it would probably be true to say that no other method of delimitation has the same combination of practical convenience and certainty of application"*. [112] State practice followed this line of the Court, giving the equidistance method a privileged status, at least as the initial step of the

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[107] Fietta & Cleverly (2016), p. 164.

[108] 1969 North Sea Continental Shelf Cases, p. 20, para. 15.

[109] *Ibid.,* p. 22, para. 19.

[110] Continental Shelf *(Tunisia/Libyan Arab Jamahiriya)*, Judgment, I.C.J. Reports 1982, p. 46, para. 43.

[111] From Equitable Maritime Boundary Delimitation-A Legal Perspective, by B. Kwiakowska, 1988, *International Journal of Estuarine and Coastal Law, 3(4)*, p. 300 (https://heinonline.org/HOL/LandingPage?handle=hein.journals/ljmc3&div=47&id=&page=).

[112] 1969 North Sea Continental Shelf Cases. p. 24, para. 23

delimitation, with the possibility to modify it at a later stage. Nevertheless, the Court stated that *"these factors did not suffice of themselves to convert what is a method into a rule of law"*. [113] Accordingly, it remarked that the equidistance principle, even though it has been proven the most widely applied delimitation method for the determination of the CS's limits between the parties concerned, especially in cases where the state's coastlines are comparable, is neither a binding option nor obligatory to implement it, as no other method of delimitation is [114], and, hence, by this case, it ceased to be a principle and became merely one method among others. [115] Furthermore, the ICJ has no obligation or commitment to evaluate in the first place the functionality of the equidistance principle, based on the case's circumstances, to contribute and even more to guarantee a fair result and only insofar as it finds relative inadequacy to swift towards an alternative method. The special features of each case at hand are those which dictate the choice of the appropriate method.

It further replied to FRG that the sole role of the Court was the delimitation and not the concession of parts or shares to either party. On these grounds, the ICJ, inspired by the Truman Proclamation, ruled that "*the delimitation should be effected by agreement in accordance with equitable principles, and taking account of al1 the relevant circumstances, in such a way as to leave as much as possible to each Party all those parts of the CS that constitute a natural prolongation of its land territory into and under the sea, without encroachment on the submarine natural prolongation of the land territory of the other"*. [116] By this statement, the Court introduced into its vocabulary the concept of the relevant circumstances (see further below), which later became an integral part of its jurisprudence.

The differentiation between equidistance and equitable principles affected decisively the formation of the provisions of the Convention regarding the delimitation of the CS and the EEZ. The idea of equitable principles became a doctrine and the judgment of the ICJ for the *1969 North Sea CS Case* was the starting point of the application of these principles. The latter was reiterated by the ICJ and arbitral tribunals in subsequent cases, inserting the said principles in the international jurisdiction of the maritime delimitations, while at the same time diminishing the privileged status of the equidistance principle considered it as a method that in some cases may

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[113] *Ibid.*

[114] See 1969 North Sea Continental Shelf Cases, p. 49, para. 90 and p. 53, para. 101(B) & Continental Shelf *(Tunisia/Libyan Arab Jamahiriya)*, Judgment, I.C.J. Reports 1982, p. 79, para.109-110. Hereafter: 1982 Tunisia/Libya Case.

[115] Dundua (2006-7), p. 17.

[116] 1969 North Sea Continental Shelf Cases, p.54, para. 101 C (1).

lead to inequitable and unreasonable results. [117] The proponents of equitable principles, among others, considered the said decision as quasi-abolitionist of the equidistance principle and as the foundation for any further provision of the delimitation process. Thus, equitable principles emerged as a primary rule reflected in customary international law in delimitation, despite the lack of any basis in the state practice.

The subsequent jurisdiction of the ICJ in terms of the CS delimitation followed the decision of the *1969 North Sea CS Case*. Therefore, it did not accept the obligatory character of any typical method of delimitation in the customary law and considered the equidistance principle/median line as one of the various possible delimitation methods. As a matter of fact, the demolishing and toning down of the equidistance principle went so far that the terms "equidistance" and "median line" have disappeared from the text of Articles 74 & 83 UNCLOS, while remaining only in Article 15. [118] Of course, the demystification of the equidistance principle from its canonical pedestal does not mean, according to the *1982 Tunisia/Libya Case*, that the said principle cannot be adopted provided that after the consideration of all the relevant circumstances brings about an *equitable solution*.

The ICJ in the same judgment formulated for the first time the concept of proportionality as "*the element of a reasonable degree of proportionality which a delimitation effected according to equitable principles ought to bring about between the extent of the continental shelf areas appertaining to the states concerned and the length of their respective coastlines, these being measured according to their general direction of the coastline*…" [119], pointing out that the said concept can be considered a decisive factor or a relevant criterion for the rejection of the equidistance line.

One of the most vital aspects of coastal geography is the configuration of the coastlines of the coastal states. Concretely, in the aforementioned case, the concave nature of the coast of the FRG sandwiched between the convex coasts of the Netherlands and Denmark, was held to be a relevant circumstance requiring departure from an equidistance-based approach [120], because "*where two such (equidistance) lines are drawn at different points on a concave coast, they will, if the curvature is pronounced, inevitably meet at a relatively short distance from the coast, thus causing the CS area they enclose, to take the form approximately of a triangle with its apex to seaward and as it was put on behalf of the Federal Republic* "*cutting off*" *the coastal state from*

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[117] Dundua (2006-7), p. 16.

[118] *Ibid.*

[119] 1969 North Sea Continental Shelf Cases, p. 53-54, para. 101 (D3).

[120] *Ibid.,* p. 19-20, para.13.

the further areas of the CS outside of and beyond this triangle". [121] The Court considered that a failure to take this aspect into account would lead to inequity in a situation where the parties' coastlines were not of similar length. Therefore, the bilateral agreement between Denmark and the Netherlands resulted in limiting the seaward extent of the FRG's CS, which was contended by the Court calling for examining the general direction and configuration of the coastline (i.e., the existence of any relevant circumstances) before the conclusion of any decision.

Nevertheless, notwithstanding the diminishing role of the equidistance principle, the vast majority of the bilateral agreements concerning the delimitation of maritime zones, mainly the CS and the EEZ, continue to adopt the simplified or adjusted equidistance line as a method of delimitation, following the three-step approach mentioned below. Furthermore, more than 1/3 of the national legislation provides for the median line as a provisional limit of the CS/EEZ, devoid of an agreement or delimitation pending with neighboring countries.

2.4.1.2. The emergence of the three-step approach

Over time, boundary delimitation proceedings have been developed through the jurisprudence of the international courts and arbitral tribunals and recently have become more settled. This is reflected in the ICJ judgment in the *2009 Black Sea Case* (in the context of a single boundary for both EEZ and CS), which standardized the three-step approach in the maritime delimitation process, while by that time, delimitation was effectuated in two phases. Specifically, during the first phase of this modular analysis, a provisional equidistance line/median line is drawn, from the determined baselines on the relevant coasts of the parties [122] (unless there are reasonable grounds that render this unfeasible in the particular dispute). At this stage of the delimitation process, the selection of baselines to measure the seaward breadth of the maritime zones and the base points for maritime delimitations is of paramount importance, as it is regarded by the Court as two different issues to deal with. [123]

Further, the said provisional line is adjusted and/or modified depending on the identification of the relevant circumstances and the weight it is attributed to them in each particular case, to correct potential distorting effects and to achieve an equitable solution.

In this sense, the Court of Arbitration in the *1977 Anglo-French Continental Shelf Case*, referred to the corrective-equity approach, i.e., equity is used as a corrective element if the application of

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[121] *Ibid*., p. 18, para. 8

[122] Maritime Delimitation in the Black Sea *(Romania v. Ukraine)*, Judgment, I.C.J. Reports 2009, p. 112, para. 155. Hereafter: 2009 Black Sea Case.

[123] *Ibid.*, p. 108, para. 137.

the equidistance method at the initial stage requires adjustment on account of relevant circumstances, and under which the equidistance method is incorporated into the domain of customary law, highlighting at the same time predictability. [124] This approach can be regarded as the antecedent of the said three-stage approach, developed through case law. On the other hand, there is the result-oriented equity approach, envisaged in the *1969 North Sea CS Cases*, which emphasizes maximum flexibility of the maritime delimitation law. [125] The Court has also referred to the application of the so-called equitable principles/relevant circumstances method to result in an equitable solution in cases where the line to be drawn covers several zones of coincident jurisdictions. [126]

Finally, the third step imposes an equitable judgment on the effects of the demarcation obtained with the first phase. In other words, it is estimated whether the effect produced, namely, the established boundary line does not lead to an inequitable result and is not "*marked by a substantial disproportion between the ratio of respective coastal lengths and the ratio of the relevant maritime areas of each state*". [127] The third stage is best known as the "disproportionality test" and verifies the equitableness of the line. Thus, the confirmation that no great disproportionality of maritime areas is evident in the course of the final line, by comparison to the ratio of coastal lengths, constitutes the final check for the overall achievement of an equitable solution as mandated by Articles 74(1) & 83(1). [128]

This three-stage approach has been accorded paramount supremacy by international jurisprudence since the date it was articulated by the ICJ, because of its transparent and objective character during the first stage and the flexibility the application of the relevant circumstances provides in the second step. Hence, it can be deduced that recent case law strengthens the status of the equidistance principle, at least in a primary stage [129], as it has been proven that the maritime delimitation process in most cases does not necessarily end with an equidistance line, no matter whether it begins with one. [130]

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[124] Tanaka (2012), p. 193,195.

[125] Ibid., p. 192.

[126] Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea *(Nicaragua v. Honduras)*, Judgment, I.C.J. Reports 2007, p. 741, para. 271. Hereafter: 2007 Nicaragua/Honduras Case.

[127] 2009 Black Sea Case. p.103, para. 122.

[128] *Ibid.*

[129] From "Maritime delimitation in the Arctic: The Barents Sea Treaty," by T. Henriksen & G. Ulfstein, 2011, *Ocean Development & International Law, 42(1-2),* p. 5 (https://doi.org/b6rzxf).

[130] Dundua (2006-7), p. 54.

2.4.1.3. The identification of the special/relevant circumstances

It is pertinent to note that the widely used, in international case law, terms "special circumstances" and "relevant circumstances", which constitute a diverse body of exceptions to the rule of equidistance/median line, are not considered identical. In this respect, UNCLOS uses the former term with regard to the territorial sea, while the latter term refers to the EEZ and CS[131], notwithstanding that recently a tendency toward the assimilation of these two concepts has been observed, and nowadays the terms are considered broadly equivalent.

The identification of the special/relevant circumstances, alleged by the parties involved in the delimitation, based on the unicum of the case, is a mandatory step, under the corrective-equity approach mentioned above, in determining the boundary line. In the evaluation of the ICJ, the geographical particularities of the area under delimitation are of utmost importance. Further, the asserted relevant circumstances encompass parameters that are consistently assessed in any given case. In other words, relevant circumstances are considered the "*factors calling for the adjustment or shifting of the provisional equidistance line in order to achieve an equitable result*", and thus to avoid an unfair and unjust delimitation. [132]

Possible relevant or special circumstances are highly variable and can be divided into two categories, i.e., geographical and non-geographical circumstances, albeit mostly geographical in nature, as noted by the arbitral tribunal in the *2006 Barbados/Trinidad and Tobago Case*, namely that the relevant circumstances have "i*ncreasingly been attached to geographical considerations*". [133] It is beyond doubt that geographical factors have been taken into consideration in almost every judgment concerning maritime delimitation. However, it cannot be concluded that there is a closed list of these features or any clear set of rules that determine how these will be treated by a Court or tribunal, but it can be assumed that their identification and determination are "case-specific", and operate only within the context of equitable principles.

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[131] 2001 Qatar/Bahrain Case, p. 111, para. 231 & 2007 Nicaragua/Honduras Case, p. 39, paras. 103-104.

[132] 2009 Black Sea Case, p.101, para. 120, referring to the Land and Maritime Boundary between Cameroon and Nigeria *(Cameroon v. Nigeria: Equatorial Guinea intervening)*, Judgment, I.C.J. Reports 2002, p. 441, para. 288.

[133] Maritime Boundary *(Barbados v Trinidad and Tobago)*, (Award), (UNCLOS Arbitral Tribunal, 11 April 2006), p. 71, para. 233.

(I) Geographical considerations

(a) Configuration of coasts and proportionality

Particular reference regarding the determination of the geographical considerations should be given, in the first place, to the length and the configuration of the respective coastlines, with the view to avoid a considerable disproportion between the coastal lengths. In that sense, the concavity or convexity of coasts, as it has been observed, among others in the *North Sea CS Cases*, constitutes a relevant circumstance to be taken into account. The complexity and the pertinence of the role of the relevant coast, which is the starting point of the maritime delimitation process, were emphasized by the ICJ in the *2009 Black Sea Case*, by stating that it is the feature that contributes both to the identification of the overlapping claims and at the final stage of the three-step approach, of the potential disproportions related to the delimitation line.[134] Accordingly, the ICJ in the *2002 Land and Maritime boundary between Cameroon and Nigeria (Cameroon v. Nigeria; equatorial Guinea intervening Case)*, emphasized that "*a substantial difference in the lengths of the parties' respective coastlines*" could qualify as a relevant circumstance". [135]

Moreover, the configuration of the coasts of the parties is interrelated with the concept of proportionality (i.e., the ratio between the maritime spaces attributed to each party and the lengths of their coastlines). Noticeably, the respective international courts and tribunals have applied the said concept in diverse geographical situations. [136] It has also been argued that proportionality has a dual role in case law, that is to say, it operates as a test of equitableness and as a corrective factor at the third stage of the delimitation, even though this distinction is rather vague and the wide application of the said factor is not without criticism. [137] In this respect, the lack of objective criteria for calculating the coastal lengths and their reasonable relation with the maritime areas attributed to each party renders the identification of the said factor complex.

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[134] 2009 Black Sea Case, p.89, para. 78.

[135] Land and Maritime Boundary between Cameroon and Nigeria *(Cameroon v. Nigeria: Equatorial Guinea intervening)*, Judgment, I.C.J. Reports 2002, p. 446-447, para. 301. Hereafter: 2002 Cameroon/Nigeria Case.

[136] Tanaka (2012), p. 200.

[137] Tanaka (2012), p. 201.

(b) Presence of islands

Aside from the configuration of the coasts and proportionality, the presence of islands may be an important geographical factor to be taken into account in the drawing of the delimitation line, given also the fact that in the vast majority of the cases, the existence of islands was the core of the dispute. Article 121 UNCLOS, which reflects customary law, provides for the regime of islands and specifies that these formations are entitled to all the maritime zones (i.e., full territorial sea, contiguous zone, and even a full EEZ and CS) just like the mainland, on the condition that they are not considered rocks and, thus, they cannot sustain human habitation or economic life of their own. [138] In the latter case, these formations are not entitled to EEZ and CS.

Nonetheless, under specific circumstances, the existence of island(s) can generate inequity and have a disproportionate effect on maritime delimitation. To this end, international courts and tribunals have developed techniques to grant these formations the appropriate effect, depending on the unicum of the circumstances, and always within the framework of equitable principles to achieve an equitable result. Generally, in case law, islands have been given four modes of effect, notwithstanding the diverse case law and state practice which renders the establishment of a general rule concerning the legal effect given to islands a complex issue. These modes can be described as follows, i.e., an island may be given "full effect" (mainly when it appears as an integral part of the general coastal configuration and is thus treated on the same footing as the continental area) [139], "no effect" [140] or "half effect" (mainly when it seems to be an aberrant/ insignificant geographical feature relating to the general configuration) [141] . The fourth mode of effect involves the "enclaving method", which was adopted for the first time by the Court of Arbitration in the *1977 Anglo-French Continental Shelf Case* regarding the Channel Islands [142] , while, by that time, the only precedent of the enclave solution could be found in the delimitation of lakes.

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[138] LOSC, Article 121.

[139] See for example the 2001 Qatar/Bahrain Case, p. 109, para. 222 and the Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea *(Nicaragua v. Honduras)*, Judgment, I.C.J. Reports 2007, p. 752, paras. 304–305. Hereafter: 2007 Nicaragua/Honduras Case, where the respective islands in the delimitation process were given "full effect".

[140] See for example the 1982 Tunisia/Libya Case, p. 85, para. 120 and the Case Concerning the Delimitation of the Maritime Boundary Between Guinea and Guinea-Bissau *(Guinea v. Guinea-Bissau)*, Arbitral Awards Rep.,1985. Hereafter: 1985 Guinea/Guinea-Bissau Case, where the respective islands in the delimitation process were given "no effect".

[141] See for example the 1977 Anglo-French Continental Shelf Case *(UK v. France)*, p. 114, para. 244 and the 1982 Tunisia/Libya Case, p. 88-89, para. 128.

[142] See the 1977-78 Anglo-French Continental Shelf Case, p. 93, para. 196.

The enclaving is an interim solution between the no effect and the half effect mode. In such a situation, the delimitation may be effectuated between the land territories as if the island did not exist, and maritime belts of a certain breadth (usually 12 nm or 13 nm belts) are attributed around the island's coasts. In essence, two modes of enclaving might occur, i.e., the "full enclave", where the maritime space of the island is completely isolated, and the "semi-enclave", where the maritime space of the island is partially connected to the maritime area under the sovereignty or jurisdiction of the same state. [143] The latter method is mainly used when the islands are located close to the equidistant line drawn, and thus the islands involved are not taken into account. [144]

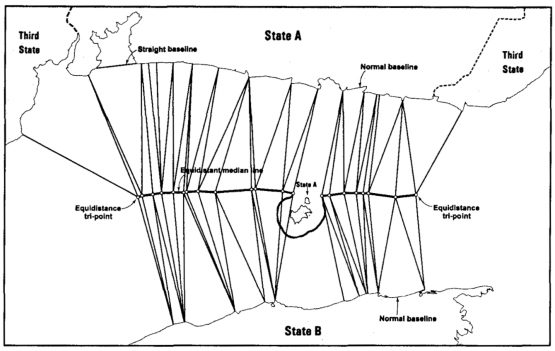

Fig. 2.4.1.: Illustration of the semi-enclave solution
[Source: United Nations. (2000). Handbook on the delimitation of maritime boundaries]

Interestingly, islands were treated discriminatively during the '70s and the beginning of the '90s, namely they were given "reduced effect" or half effect in the delimitation process. This was changed by the 1992 decision of the Court of Arbitration in the Case concerning the delimitation of marine areas (*St. Pierre and Miquelon*), which reviewed the concept of the "reduced effect" and recognized the right of the islands to maritime and submarine areas of 200 nm. However, traditionally, the most common method used by the ICJ in delimitation agreements is to reduce the effect of the islands on the equidistance line [145] , as the islands are usually situated on the "wrong side" of the said line. It is also trite to mention that in several boundary delimitations, small coastal islands and islets tend to be ignored.

(c) Geological and geomorphological factors

Moreover, geological (i.e., factors relating to the composition and structure of the seabed), and geomorphological (i.e., factors concerning the seabed's shape and form) considerations, which are interrelated with the concept of natural prolongation, may constitute relevant circumstances in the delimitation of the CS within 200 nm, notwithstanding the limited importance attributed to

[143] See supra note 101, pp. 59-60.

[144] *Ibid.,* p. 59.

[145] From "Lessons Learned From The Gulf Of Maine Case: The Development Of Maritime Boundary Delimitation Jurisprudence Since UNCLOS III," by S. Kaye, 2008, *Ocean and Coastal Law Journal, 14(1).* p. 84. (https://digitalcommons.mainelaw.maine.edu/oclj/vol14/iss1/5/)

them by both the international courts and tribunals and state practice. [146] The said considerations are considered even more limited in cases of drawing an SMB, because of the application of neutral criteria and geometrical methods. [147] The main reason for this irrelevance is that the coastal states are entitled, under the UNCLOS provisions, to a CS as well as an EEZ/FZ of 200 nm. The latter argument was enhanced by a dissenting opinion of Judge Shigeru Oda, who concludes that the wording of Article 76(1) UNCLOS was intended to provide all coastal states an entitlement to a CS of 200 nm regardless of the geology and geomorphology of the seabed and subsoil. [148] Nevertheless, in a limited number of cases [149], these factors have been determinant in modifying the equidistance line, while in the event of delimitations of CS beyond 200 nm, geological factors, such as a gap or trough, have been taken considerably into account, as the natural boundary of the CS between them. [150]

Besides the geographical particularities, the involvement of legal rights and/or claims of third states in the delimitation area is also a consideration to be taken into account in maritime delimitation.

(II) Non-geographical factors

Apart from the geographical considerations which as was previously stated are considered leading factors in determining the boundary line, there are also several non-geographical factors, whose influence generally seems to be modest in the delimitation process. Put tersely, these include, among others, different types of socio-economic factors, security, and political interests,

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[146] See for example the 1965 Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Kingdom of Norway Relating to the Delimitation of the Continental Shelf between the two countries (Hereafter:1965 Agreement between the United Kingdom and Norway), the 1977 Agreement between the Republic of Haiti and the Republic of Cuba Regarding the Delimitation of Maritime Boundaries between the two states, and the 1978 Agreement between the Government of the Kingdom of Thailand and the Government of the Republic of India on the Delimitation of Seabed Boundary between the two countries in the Andaman Sea, where the geological and geomorphological circumstances constituted relevant circumstances, albeit in a somewhat limited way.

[147] Tanaka (2012), p. 206.

[148] From International Maritime Boundaries for the Continental Shelf: The Relevance of Natural Prolongation, by J. I. Charney, in N. Ando, E. Mcwinney, & R. Wolfrum (Eds.), *Liber Amicorum Judge Shigeru Oda* (Vol. 2, pp. 1026–1027), 2002, Kluwer Law International.

[149] See for example the 1972 Agreement Between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries in the Area of the Timor and Arafura Seas, and the 1989 Treaty between Australia and the Republic of Indonesia on the Zone of Cooperation in an Area between the Indonesian Province of East Timor and Northern Australia.

[150] Dundua (2006-7), p. 67.

the parties' conduct, historic rights [151], and navigational and environmental factors, to which the Court has paid lip service with regard to delimitation agreements of CSs or SMBs.

(a) Socio-economic factors

Special reference shall be made to the socio-economic factors, which may include the existence of hydrocarbon resources, fisheries, economic dependency on natural resources, and national economic wealth. Not surprisingly, in many cases, the economic benefits accrued from the exploration and exploitation of natural resources, especially the hydrocarbons lying in the maritime zones, lead coastal states to the conclusion of maritime boundary agreements.

However, the ICJ seems hesitant to consider these factors as relevant circumstances, both because these circumstances are volatile over time and this would mean the re-consideration of the boundary line, which is discordant with the principle of stability and finality of maritime boundaries, in the same way as land borders, and because Court's task is not to establish a regime of equitable allocation of resources. [152] Accordingly, the Court in the *1982 Tunisia/Libya Case*, where the parties concerned underscored the importance of economic considerations, pointed out that they "*are virtually extraneous factors since they are variables which unpredictable national fortune or calamity, as the case may be, might at any time cause to tilt the scale one way or the other [..]*". [153]

Moreover, it has been stressed that these parameters to be taken into account as relevant circumstances or as equitable criteria justifying any correction of the delimitation line drawn shall "*be revealed as radically inequitable, that is to say, as likely to entail catastrophic repercussions for the livelihood and economic well-being of the population of the countries concerned* " [154], setting, thus, a high threshold ("exceptional issues of access to natural resources"), to be met. An illustrative exception where these considerations were deemed to substantially impact the boundary line's final course is the *1993 Case Concerning the Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway)*, (hereafter *1993 Jan Mayen Case*).

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[151] According to Tanaka (2012), p. 211, "historic rights" may be defined as rights over certain land or maritime areas acquired by a State through continuous and public usage from time immemorial and acquiescence by other States, although those rights would not normally accrue to it under general international law.

[152] Dundua (2006-7), p. 68.

[153] 1982 Tunisia/Libya Case, p.77, paras. 106-107.

[154] 1984 Gulf of Maine Case, p. 342, para. 237.

At the same time, state practice seems to follow the jurisprudence in this field, by attributing the economic factors a secondary role in the delimitation of either the CS or the SMB. Instead, it is a common practice for states to provide in the delimitation agreement further cooperative arrangements to share out the exploitation of a given oil or gas field or establish joint fishery zones straddling the delimitation line by inserting resource-deposit clauses, unitization clauses, or by establishing joint development schemes. [155] Thus, these separate agreements, designed by the parties to complement boundary settlement, contribute to best coping with human and resource repercussions that cannot be entirely ignored.

(b) Security & political interests

Another relevant circumstance of non-geographic nature worth mentioning is security and political considerations. As for the political considerations, it is the political status of the territories between which the boundary line runs that matters, i.e., whether the parties are independent sovereign states or not [156], but they should also be borne in mind the political grounds of the conclusion of a delimitation agreement (e.g., good neighborliness, foreign policy objectives, dispute avoidance, etc.), which usually are not revealed by the parties.

Regarding the security factors, a diverse interpretation of these factors is likely to exist i.e., involving military activities, or more broadly, security of fishing activities, access to resources, navigation, labor, and environmental concerns. [157] In the *1985 Libya/Malta Case*, the Court considered security interests to be interrelated with the distance between the parties, noting that the said interests are not likely to affect the location of the boundary line as this was "*not so near to the coast of either Party as to make questions of security a particular consideration in the present case*" [158], albeit the influence of these factors is still uncertain in state practice. It should be also noted that technological advances have rendered security considerations more irrelevant in boundary delimitation.

Put tersely, international jurisprudence, notwithstanding that it has not attributed great value to non-geographical factors, has not completely disregarded them. It may be said that whereas several factors may have not been taken into consideration separately for the drawing of a

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[155] See supra notes 101,143, p. 38.

[156] See for example the 1977-78 Anglo-French Continental Shelf Case and the Continental Shelf (Libyan Arab Jamahiriya/Malta), Judgment, I.C.J. Reports 1985. Hereafter: 1985 Libya/Malta Case.

[157] See supra note 151, p. 43.

[158] 1985 Libya/Malta Case, p. 42, para. 51.

maritime boundary if considered in accumulation, they evince the existence of a broader concept, called "predominant interest" of the coastal states, which bears greater weight and it is difficult for courts and tribunals to disregard it during the delimitation process. [159,160] As Judge Fisher marked in his Dissenting Opinion at the *1993 Jan Mayen Case,* "*There is no question of assessing single factors individually as relevant, but of assessing and weighing them up collectively*". [161] This aggregation of a gamut of concerns could be utilized in addition to the disproportionality test, mainly based on geography, during the verification stage of the delimitation process to assist courts and tribunals in deciding whether the outcome of the delimitation reflects an equitable solution and such a delimitation cannot be considered equitable if vital interests of the coastal states have not given the relevant consideration. [162] In essence, what the ICJ has rejected was not the socio-economic factors as such, but their consideration as a means to improve the economic status of the coastal states.

To take stock, it is at the parties' discretion, during the delimitation process, to opt for the relevant circumstances they consider more relevant for achieving an equitable result in any given case, whilst geographical considerations rank first in their preference.

2.4.2. Equity/Equitable Principles

The notion of equity is at the heart of the delimitation of the CS and entered into the delimitation process with the 1945 Truman Proclamation (concerning the delimitation of the CS between the US and adjacent states). More specifically, the Court in the *1982 Tunisia/Libya Case* defines the concept of equity:

Equity as a legal concept is a direct emanation of the idea of Justice. The Court whose task is by definition to administer justice is bound to apply it. […] Moreover, when applying positive international law, a court may choose among several possible interpretations of the law the one which appears, in the light of the circumstances of the case, to be closest to the requirements of justice. [163]

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[159] See "The 'Predominant Interest' Concept in Maritime Boundary Delimitation" [Paper presentation], by N. Ioannides, 2020, *2019 ESIL Annual Conference*, Athens, p.19 (https://doi.org/ggzpnj).

[160] For example, in the 1993 Jan Mayen Case, at the Counter-Memorial of Norway, p.188, para. 673, Norway used the "aggregation" argument to strengthen its claims for the maritime area around Jan Mayen stating that: "the interests of Norway in the areas around Jan Mayen tend to form a natural grouping […]".

[161] 1993 Jan Mayen Case, Dissenting Opinion of Judge Fischer, p. 310, para. 14.

[162] Ioannides (2020), p. 25.

[163] 1982 Tunisia/Libya Case. p. 60, para. 71.

Thus, in the *1969 North Sea CS Cases*, but also during the *1985 Libya/Malta Case*, the ICJ stated that: "*it's not a question of applying equity simply as a matter of abstract justice, but of applying a rule of law which itself requires the application of equitable principles, in accordance with the ideas which have always underlain the development of the legal regime of the continental shelf in this field*".[164] It, thus, appears that equity is applied by the courts as a part of international law and as a rule of law for the delimitation of the CS. The main issue with the concept of equity is that it does not provide any general criteria or fixed principles to achieve an equitable result. It rather seems that there is no equitable principle in maritime delimitation that is applicable for all cases, i.e., that it is applied *mutatis mutandis* in any particular case, but rather an equitable result must be sought for each case separately. Accordingly, the ICJ in the *1984 Gulf of Maine Case* comments that "*there is no single method which intrinsically brings greater justice or is of greater practical usefulness".* [165]

It should be mentioned, though, that in practice relevant circumstances and equitable principles go hand in hand, as both acquire substance only by reference to the other. [166] Further, according to Cottier, equity and equidistance principle/median line should not be directly compared as the former encompasses the latter. [167] As a result of the jurisprudence of the ICJ, it appears that the cases advancing and crystallizing the doctrine of equitable principles applicable to maritime delimitation are among the most debatable decisions in the Court's history. [168]

2.4.3. Meridians and parallels

Interestingly, when delimiting their boundaries with neighboring states, coastal states sometimes may decide to adopt *ad hoc* solutions that reflect specific circumstances *in casu*, without always obvious reasons behind the utilization of this kind of solution. [169] Among the often-cited reasons are the easier political approval and the facilitation of law enforcement because of the simple character of these boundary lines. The use of parallels and meridians (otherwise known as sector theory) is one particular case worth mentioning in our discussion, where the lines drawn do not

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[164] 1969 North Sea Continental Shelf Cases, p. 47, para. 85.

[165] 1984 Gulf of Maine Case, p. 315, para. 162.

[166] Dundua (2006-7), p. 54.

[167] Ioannides (2020), p.27.

[168] Kwiakowska (1988), p. 287.

[169] From "Toward The Conceptualization of Maritime Delimitation: Legal and Technical Aspects of a Political Process"[Doctoral thesis, Durham University], by N. M. Antunes, 2002, p. 178 (http://etheses.dur.ac.uk/4186/)

have a direct relationship to the coastline or coastal fronts and, therefore, coastal geography can barely affect the delimitation.[170]

So, besides the equidistance/adjusted equidistance line and the equitable principles widely used in the delimitation process, there is a delimitation methodology consists in using parallels of latitude (lines east-west) and meridians of longitude (lines north-south), among others. An illustrative example of an agreement where this methodology was used is the *1952 Santiago Declaration*, where the three parties used parallels to delimit their maritime boundaries, followed by other agreements, for the most part, among Latin American states.

Map 2.4.3.: Example of combined use of parallels and meridians [Maritime Boundary established by the Agreement between Colombia and Panama (1976)] (Source: Sovereign Limits)

Indeed, there are several cases where it has been observed a combination of this method with the equidistance principle or other methods as well (i.e., the equidistance line was used as the starting point, or on the contrary, the sector principle was used in the initial stage of the delimitation [171]) since the strict application of the said method is not considered sufficient to yield equitable results. The latter does not imply, however, that there are no advantages provided, such as simplicity and the avoidance of the cut-off effect which would possibly result from the adoption of an equidistance-based delimitation method.

Noticeably, it is deemed that the meridian-based sector approach, being the second most popular method after the equidistance method, might be the most appropriate and convenient method for delimitation in the Arctic Ocean. State practice already from the '20s and '30s followed the sector-based method for maritime delimitation in the Arctic region, while the same practice was used also for the overlapping claims in the Antarctic. [172] Accordingly, Canada and Russia, having already used the sector-based approach before, for the territorial claims in the Arctic Ocean, might prefer to establish their delimitation lines based on the same method. [173]

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[170] Fietta, & Cleverly (2016), p.104.

[171] See 2007 Nicaragua/Honduras Case. pp. 743-746, paras. 280-285.

[172] From "Maritime Delimitation in the Barents Sea and International Practice in Maritime Delimitation, " by M. J. Filipek & D. Hruzdou, 2011, *Polish Yearbook of International Law, 31,* p. 211 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2218624).

[173] From *Defining legal borders in the Central Arctic Ocean,* by E. Antsygina, 2019, Queen's University (https://law.queensu.ca/news/Defining-legal-borders-in-the-Central-Arctic-Ocean).

Taking into consideration the initial international agreements that established sectoral-based boundaries among the states (i.e., the 1824 Russo-American Treaty on border delimitation and the 1867 US-Russian Treaty on the sale of Alaska), it is concluded that these agreements established sovereignty over land territories that fall within the sector in the region and did not establish maritime boundaries. However, over time, while Arctic states started to claim extended maritime spaces and the 1958 Geneva Conventions were adopted, the sector-based approach became part of the legal process of delimitation in the Arctic Ocean and one method among others.

According to some scholars, it has been recognized that the Arctic coastal states, by applying the sector theory, albeit legally established as a delimitation process in the Arctic since the 19th century, would possibly divide all the parts of the Area lying in the Arctic Ocean into sectors between the Arctic Five and the existence or absence of the Area in the Ocean would depend on the will of these states. [174] The latter practice of course is at variance with the provisions of Part XI UNCLOS and the *1994 Agreement relating to the Implementation of Part XI*, as encroachment of the Area is prohibited under Article 137 UNCLOS.

2.5. The outer limits of the Continental Shelf

The procedure for delimitation of the CS differs from that for delineation of the outer limits, with the former being legally possible before the completion of the latter. As it was mentioned above, delimitation is the process of establishing lines separating the spatial ambit of coastal state jurisdiction over maritime space where the legal title overlaps with that of another state [175], whereas delineation refers to the establishment of the extended CS's outer limits.

The establishment of the outer limit of the CS, based on geological and geomorphological criteria (i.e., where a state's continental margin extends beyond 200 nm), is a rather complex procedure, but it is essential to determine the exact extent of a coastal state's entitlement over its CS [176]. Initially, it should be mentioned that the said criteria permit the coastal state to delineate the outer limit of the CS irrespective of the distance from the coast, i.e., beyond 200 nm from the baselines. On the contrary, as far as the overlapping entitlements of the CS within 200 nm from

[174] From "Delimitation of the Continental Shelf in the Central Arctic Ocean: Is it Possible Nowadays?, "by V. A. Koshkin, 2022, *Arctic Review on Law and Politics, 13(2022)*, p. 394 (https://doi.org/10.23865/arctic.v13.3771).

[175] Tanaka (2012), p. 187.

[176] Koshkin (2022), p. 397.

the shore are concerned, the "distance criterion" is applied, while the "geological and geomorphological criteria" are not accepted. [177]

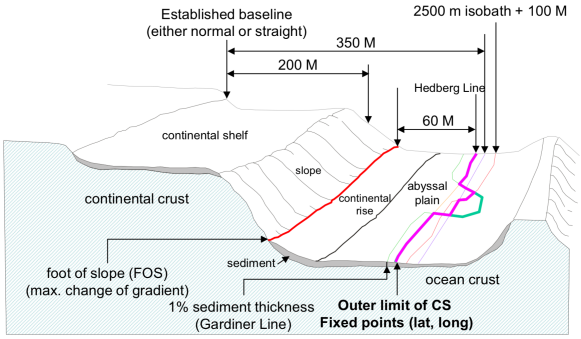

Fig. 2.5.: Delineation beyond 200 nm

(Source: UN Division for Ocean Affairs and the Law of the Sea)

The precise seaward extent of the outer limit of the CS was not specified by the *Truman Proclamation* nor by the subsequent state practice, as the coastal states did not converge into the absolute maximum outer limit of the CS's entitlement. The development of rules and procedures to precisely define the seaward limits of the CS was extensively debated and ultimately codified by UNCLOS III. The definition of the seaward limits would serve both the coastal states with extended CSs and the international community since the outer limits collectively also delimit the Area (see section 1.2.7.). The respective provisions of UNCLOS constitute customary rules and therefore are binding for all states, whether they are parties (and thus bound *inter se* by treaty law) or non-parties to the LOSC. The Arctic states are, thereby, eligible to claim a CS beyond 200 nm under customary international law, a fact around which reside most of the disputes in the area, as it will be analyzed further below.

According to Article 76(7) UNCLOS, when the CS extends beyond 200 nm from the baselines from which the breadth of the territorial sea is measured, the coastal state shall delineate the outer limits of its correspondent CS. In any case, the fixed points comprising the line of the outer limits of the CS on the seabed shall not exceed 350 nm from the baselines, from which the breadth of the territorial sea is measured (distance constraint), or shall not exceed 100 nm from the 2,500 - meter isobath (depth contour), with the latter being applied only in cases where submarine elevations that are natural components of the continental margin exist. [178] Nonetheless, considering Article 77, holds that even if a coastal state has not defined the outer limits of its CS, is not prevented from exercising its inherent rights to explore and exploit its natural resources on the CS.

Article 76(4) provides for the two complex applicable formulae concerning the determination of the "outer edge of the continental margin", with the first to be based on distance and the second

[177] Strati & Ioannou (2013), p. 138.

[178] LOSC, Article 76(5) & (6).

on the sediment thickness beneath the seafloor. [179] For these formulae to be applied, the collection, processing, and analysis of a vast amount of marine geophysical data are required.

To achieve the necessary control during the delineation of the CS beyond 200 nm, which has attracted the interest of many coastal states, notably including the Arctic coastal states, a technical body was established by the LOSC, in 1997, with the purpose to assess scientific data respecting the outer limits of the CS and to support coastal states in implementing Article 76 UNCLOS. The said body is known as the Commission on the Limits of the Continental Shelf (CLCS or Commission), whose role and procedures are introduced in Article 76(8). Be that as it may, the Commission process provides legitimacy to a coastal state's shelf outer limits *vis-à-vis* third states, even though a state has, under UNCLOS, an inherent right to a CS beyond 200 nm. Accordingly, ITLOS in its *2012 Bangladesh /Myanmar judgment*, stated that "*the coastal states with geological prolongations, i.e., with extended CSs, can exercise exclusive jurisdiction over their adjacent legal CS, regardless of whether the procedural requirements of Article 76(8) are met, without undermining the importance of the outer-limit criteria or the Commission's role*".[180]

2.6. The Commission on the Limits of the Continental Shelf (CLCS)

Any coastal State that intends to claim a CS beyond 200 nm is required to submit information supporting the proposed outer limit of its shelf to the Commission. These submissions need to be accompanied by technical and scientific data based on bathymetric (i.e., water depth) and geological studies, among others [181], as well as by distance measurements (i.e., the location of the limit lines).

The CLCS can be described as an administrative institution, while it cannot be considered a *stricto sensu* dispute settlement mechanism nor a political or judicial body. Under Article 2(1) of Annex II UNCLOS, the CLCS shall consist of 21 scientific experts in geology, geophysics, and hydrography. These experts are elected by the states parties to the LOSC, ensuring equitable geographical representation. Even though the CLCS is not entirely separated from the legal interpretation of the Convention rules, it contains no jurists.

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[179] Article 76(4)(a)(i) & (a)(ii) of LOSC introduces the two applicable formulae with respect to the establishment of the outer edge of the continental margin: i) the Irish formula or "Gardiner Line" is the 'sedimentary rocks thickness' test that provides that the outer edge of the continental margin is fixed by a line delineated by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1% of the shortest distance from such point to the foot of the continental slope, and ii) the Hedberg formula is the '60 nm from the foot of slope' test providing that the outer edge of the continental margin is determined by a line delineated by reference to fixed points not more than 60 nm from the foot of the continental slope. Both formulae use as a reference point at the foot of the continental slope (FOS).

[180] See 2012 Bangladesh/Myanmar Case, p. 107.

[181] LOSC, Article 4 of Annex II.

The Commission is charged with two functions. First, to review the data and other material submitted by coastal states related to the outer limits, where those limits extend beyond 200 nm of their CS, making certain recommendations, and second, to provide scientific and technical advice when requested by the coastal state during the preparation of the particulars for submission to the Commission. [182] In 1999, aiming to facilitate its second mandate, the CLCS adopted the "*Scientific and Technical Guidelines*". According to Article 76(8), when the state establishes its shelf's outer limits and deposits the necessary maps and coordinates with the UN Secretary-General, who gives due publicity to the relevant outer limits, these outer limits "*shall be final and binding*" on the said state. Even though there is no obligation for states parties to adopt the Commission's recommendations if they are not acceptable to them, the LOSC provides that when the demarcation is implemented then it is considered "*final and binding*".

According to Article 4 of Annex II UNCLOS, coastal states may delineate the outer limits of their CSs beyond 200 nm at any time, but they need to respect a deadline of ten years of their entry into force of the LOSC. Further amendments extended the ten-year rule, notably because of concerns raised by developing states based on difficulties faced due to the lack of financial and technical resources. [183]

Provided that a coastal state disagrees with the Commission's recommendations, the state shall lodge with the CLCS a revised or new submission within a reasonable time frame. [184] If disagreement persists, the coastal state may establish its outer limits allowing other states to evaluate their credibility. In that case, the coastal state's limits would not be "*final and binding*".

Due to its nature as a recommendatory body and not a dispute settlement mechanism, in cases of disputes regarding the delimitation of the CS between opposite or adjacent states, the Commission has no legal mandate to resolve them. [185] Therefore, it will not consider any submission without the prior consent of all concerned states parties. After all, in conformity with Article 76(9), it is recognized that the competence concerning disputes on maritime boundary delimitation rests with coastal states that may settle them, *inter se*, either bilaterally or through the dispute settlement mechanisms provided under UNCLOS. Extended CS claims are disputed in many regions of the world, including the Arctic zone, which are analyzed in the relevant chapter.

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[182] *Ibid.,* Article 3 of Annex II.

[183] Tanaka (2012), p. 35.

[184] LOSC, Article 8 of Annex II. See also Rules of Procedure of the Commission on the Limits of the Continental Shelf, CLCS/40/Rev. 1, 17 April 2008, Rule 53, Article 4. (https://www.un.org/depts/los/clcs_new/commission_documents.htm).

[185] *Ibid.,* Annex I, Article 5(a).

At this point, it is pertinent to mention that the use of the term "recommendations" instead of "decisions" regarding the outcome of the Commission, indicates the persuasive nature of data and other material proposed by the CLCS and that their application is left to the coastal state's willingness.

In addition, the UN Secretary-General has allowed third parties to express, within three months from the file of the submission to the CLCS, in the form of Notifications, their concerns, and objections. These Notifications point to the existence of a dispute involved in a submission, intending to prevent the CLCS from making recommendations.

Further, the LOSC does not preclude non-parties from submitting to the CLCS, while non-parties can also send Notifications to the CLCS. For example, the US, Canada, and Denmark, among others, lodged their Notifications to the 2001 Russian submission, the first-ever submission on the outer limits of the extended continental shelf (ECS) received by the CLCS. At that time, the states mentioned above were not yet parties to the LOSC. Even so, their Notifications were accepted by the submitting state without any problem (see more in Chapter 4). [186]

It is worth mentioning that a non-party to the LOSC, which in any case is fully entitled to its CS, may define the outer limits of its ECS, even in the absence of the Commission's recommendations. This could occur in areas where CS limits are complex and uncertain, and thus difficult to delineate, as is the case of the Arctic region. In that event, third states may object to the establishment of such limits. On the contrary, taking into consideration the CLCS's recommendations would grant legal certainty to those limits and international stability. The US can serve as the most representative example of a non-party, with one of the longest CS worldwide. The Commission's cooperation with non-parties to the LOSC should be welcomed by the international community, as it seems to promote global interest in clarifying coastal limits.

According to the latest data, as of February 28, 2023, 93 coastal states have filed a submission before the CLCS, under Article 76(8), on the outer limits of the CS beyond 200 nm, while the Commission has adopted 36 Recommendations and many more are still pending. To date, the Commission has held 57 sessions at its Headquarters in New York, the last of which took place from 23 January to 10 March 2023.

At the current rate of work, for the consideration of a submission by the CLCS, at least two years are required. However, due to its workload, it might need 15-20 years to review and provide recommendations on all of the submissions received to date from the Arctic coastal states. Moreover, albeit it is considered a costly and time-consuming procedure, possesses the

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[186] From "Third-Party intervention in the Commission on the Limits of the Continental Shelf Regarding Submission Involving a Dispute," by M. Gau, 2009, *Ocean Development and International Law, 40(1)*, p. 66 (https://doi.org/fhs4nw).

significant virtue of providing for a definable limit to the CS, which has been touted as "the real achievement" of Article 76. [187]

In essence, following the existing global energy shortage and the mounting interest in the potential mineral riches and reserves hidden deep in the seabed and subsoil of the CS within and beyond the 200 nm, the CS proves to be lucrative for the coastal states. The lure of mineral resources has led states in spending untold millions to provide evidence that their adjacent CS extends beyond 200 nm and to push proposed outer limits as far seaward as possible, contributing, in this manner, to a significant increase in scientific knowledge, but also to potential maritime disputes in certain regions of the world, such as the Arctic Ocean.

2.7. Conclusion

To take stock, the case law of the ICJ has made an enormous contribution to the development of maritime boundary delimitation, building a significant body of jurisprudence and providing a framework for applying the rather vague provisions (Articles 74 & 83 UNCLOS) — as they shed little light on the way a particular delimitation should be effectuated — in specific maritime boundary delimitation cases. Indeed, the way it is done has been occasionally criticized, but the reality is that it has developed the framework which is and possibly will continue to be universally used. Moreover, the ICJ is generally considered to offer predictable outcomes, being, by this means, very attractive for client states to refer disputes to it.

The ICJ recently has elevated the equidistance line as a method of delimitation, which since the *1969 North Sea CS Cases* had been in decline. This largely changed through the *2009 Black Sea Case*, when the three-step approach was developed, the starting point of which, in most cases, is the median/equidistance line. Further, irrespective of the special features that are taken into account in the delimitation process, the main priority of the courts and tribunals remains the outcome of the delimitation to provide an equitable result (*result-driven approach*).

Meanwhile, the formation of international jurisprudence regarding the elucidation, interpretation, and implementation of the norms constituting the LoS is considered a dynamic process subject to continuous development, corresponding to technological developments and geopolitical challenges. Among the competent bodies that the state concerned can appeal for dispute resolution, the more prominent position, as it was indicated above, holds the ICJ, while ITLOS and arbitral tribunals have also contributed decisively to the interpretation and implementation of the LOSC and the finding of just and viable solutions.

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[187] From "The Role of the Commission on the Limits of the Continental Shelf: Technical Body in Political World," by T. L. McDorman, 2002, *International Journal of Marine and Coastal Law, 17(3)*, p. 307 (https://doi.org/c6vhcf).

Finally, as it is deduced from the aforementioned relating to the development of the case law, the maritime delimitation does not entail peremptory norms (*jus cogens*) of international law (i.e., norms with which treaties must not conflict), but *jus dispositivum* (i.e., norms derived from the consent of states), namely one cannot conclude from the establishment of a boundary in a particular manner that the parties claimed or recognized that it was in any way obligatory for them to use particular delimitation methods. States are unwilling and reluctant to recognize that certain conduct is required or permitted by general law, because it may preclude them from asserting the contrary at a later stage. [188]

[188] From On the Quasi-Normative Effect of Maritime Boundary Agreements, by M. Mendelson, in N. Ando, E. McWhinney, & R. Wolfrum & B. B. Röben (Eds.), *Liber Amicorum Judge Shigeru Oda*. (Vol. 2, pp. 1069-1086), 2002, Kluwer Law International.

Chapter 3: The Arctic Ocean

3.1. Basic Features of the Arctic Region

The Arctic Ocean, made up of various regional seas, is considered to be the smallest ocean worldwide, covering an area of roughly 14 million km^2, according to the 2008 US Geological Survey (USGS) — a leading scientific research organization — and having a maximum depth of 5,500 meters.

The Arctic region, comprising approximately 6% of the Earth's surface, constitutes a strategic area for all the states along its borders and the international community as a whole. Particular reference is made to the eight states of the Arctic Council, i.e., Canada, the Kingdom of Denmark (on behalf of Greenland), Norway, the Russian Federation, the US (on behalf of Alaska), Iceland, Finland, and Sweden. These states act like the "stewards of the region" as their national jurisdictions govern the waters surrounding the Arctic. The Arctic region is considered a geographical area that contains natural resources of critical importance for mankind and has geopolitical gravity, enhancing in such a way the competition between the existing or potential stakeholders.

Nevertheless, the increasing quantities of energy resources and the opportunities offered by the control of maritime connectivity routes and fishing rights are combined with the environmental pollution of the region on an alarming scale and other military interventions and challenges. Over the past five decades, the Arctic environment is experiencing drastic changes as the sea ice is decreasing at a rapid rate. Specifically, it has been observed a decline in the sea ice extent since satellite observation began in 1979. According to data from 2018, although there is inter-annual variability and the reduction is not equally distributed around the Arctic Ocean, there has been a huge decline in the summer ice extent, which is at the minimum in September, with more than 10% each decade, while the decline in winter is about 2,5% but it is still taking place. The future scenarios are even more daunting as can be seen in the adjacent figure.

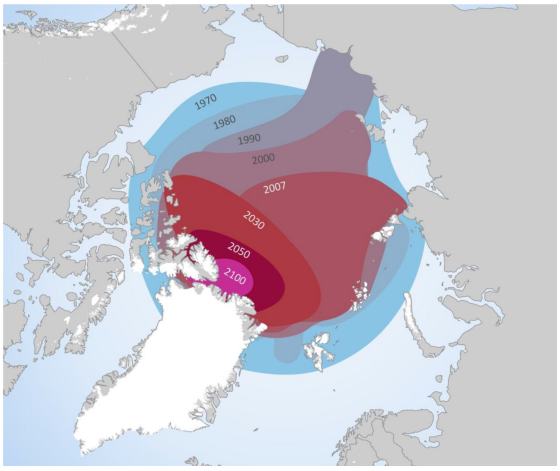

Fig. 3.1.: Arctic Sea Ice Extent from 1970 to 2100
(Source: Arctic Yearbook 2012)

The main reason for that resides in the fact that the Arctic waters are getting warmer more than twice swiftly as the rest of the Earth's regions.

Importantly enough, according to the US National Oceanic and Atmospheric Administration (NOAA), the Arctic Ocean has lost about 95% of its oldest and thickest ice [189] and thus, it can be expected that in the coming years, even by the late 2030s, if urgent measures are not taken, the present scenarios of "ice-free" summers will become a reality, and within the next decades, this warming trend may transform the region from an inaccessible frozen desert into a seasonally navigable ocean. [190] Moreover, the melting permafrost hastens even further climate change as it releases methane into the atmosphere, which, in its turn, causes heat waves in the coldest regions of the High North.

It is worth mentioning that according to a recent model simulation by the Norwegian Polar Institute, it is likely that temperatures in the Arctic will increase by 3–8° C before 2080. There are already parts of the central Arctic Ocean that are not ice-covered year-round, and thus are accessible to fishing vessels during the summer period.

Thus, the Arctic is a rapidly melting ocean, with competition raging over its fisheries, mineral resources, extended maritime claims (i.e., mainly CSs), and new and fast-opening waterways [191], ready to explore it.

3.2. The Arctic Council

Fig. 3.2.: The Members of the Arctic Council
(Source: Arctic Council)

Although the LOSC provides the basic framework of governance and regulation in the Arctic region, there are some fields where additional rule-making and cooperation among the coastal states are required. To this purpose, in 1996, in the geographical area referred to as the "Arctic Circle", the Arctic Council (hereinafter "the Council") was established, under the Ottawa Declaration, between the Arctic "littoral states". Initially, the Council was a regional high-level intergovernmental forum with a role limited to making proposals on common Arctic issues, aiming at enhancing scientific knowledge. One of the unique features of the Council is its inclusion and the active involvement of indigenous people and local communities as permanent participants, focusing on the enhancement of cooperation and coordination among the Arctic states, in particular regarding

[189] From High North and the Antarctic (p. 363), by D. Abdel-Motaal, in J. Weber (Ed.), *Handbook on geopolitics and security in the Arctic: The High North Between Cooperation and Confrontation* (Ser. Frontiers in International Relations), 2020, Springer (https://doi.org/j27v).

[190] From Humpert & Raspotnik (2012), p. 283.

[191] From Prelude-Introductory words (p. 13), by D. Abdel-Motaal, in J. Weber (Ed.), *Handbook on geopolitics and security in the Arctic: The High North Between Cooperation and Confrontation* (Ser. Frontiers in International Relations), 2020, Springer (https://doi.org/j27v).

issues of sustainable development and environmental protection in the said region.[192] Albeit it cannot be touted as an international organization with rule-making power, over time, the Council has obtained international political status and its decisions are now binding for the states-participants. However, the Council is not bound by any treaty, and its members have opted not to deal with matters of military security, due to the tensions of the Cold War era. The members of the Council are the eight Arctic states, five of which, i.e., the Russian Federation, the US, Canada, Norway, and Denmark (on behalf of the Faroe Islands and Greenland) border directly with the Arctic Circle, while three of them, i.e., Iceland, Sweden, and Finland, participate to the Council as they geographically border with the Arctic region. Each member chairs for a period of two years, with Norway being the next member to take over the chairmanship of the Council from Russia in May 2023. All Arctic Five (the four states parties and the US as a non-party to the LOSC) are bound to the core principles of the LOSC as they reflect customary law.

Particularly, the status of Permanent Participants is granted to six Arctic Indigenous organizations, as the Indigenous people hold a large share of the Arctic's inhabitants (around 500.000 out of the total 4 million). These organizations are the following: the Inuit Circumpolar Council (ICC), the Saami Council, the Aleut International Association (AIA), the Arctic Athabaskan Council (AAC), the Gwich'in Council International (GCI), and the Russian Association of Indigenous Peoples of the North (RAIPON). The Permanent Participants enjoy full consultation rights when it comes to the Council to negotiate or take a decision at all levels. It is pertinent to note that all decisions are taken only by consensus among the eight Arctic states.

Fig. 3.3.: The Six Arctic Indigenous Organizations with Permanent Participant Status in the Arctic Council (Source: Arctic Council Indigenous Peoples' Secretariat)

In addition to the Permanent Participants that are engaged actively with the activities of the Council, there are around 40 more non-Arctic states and international organizations that participate in the meetings of the Council with the Observer's status. Although they do not have voting rights, they engage in the Council by participating at the level of subsidiary bodies, namely in the six Working Groups and one Expert Group, whose activities cover a broad range of subjects, notably including Arctic pollution, biodiversity, protection of the marine environment or making contributions and proposals through an Arctic

[192] From *About the Arctic Council*, (n.d.), Arctic Council (https://www.arctic-council.org/about/).

state or a Permanent member. Their participation in the Council offers added value as they support the work of the permanent members through the provision of scientific data, other information, and financial resources which do not exceed the financing from the Arctic states.

It is worth mentioning that, in 2013, when the Arctic Council Observer Manual was adopted, the Council accepted as Observers the following states: China, whose Arctic policy is further analyzed below, Japan, North Korea, Singapore, India, and Italy. On the contrary, it did not accept the participation request of the European Union (EU), mainly because of the disagreement between the permanent organizations of the indigenous people regarding the prohibitions that exist in the EU for the sale of products from the sealing. The decision of the indigenous people, who make a living from fishing, and trading their products, was "No Seal, No Deal". In other words, if the legislation did not change, they would not accept the entrance of the EU into the Arctic Council. [193] Observers are bound to comply with the rights of the Arctic states and the principles of UNCLOS as the institutional basis defining that all the natural resources lying in the Arctic territory and falling within the national jurisdiction of the Arctic states belong to them.

Overall, the establishment of the Arctic Council was considered an important milestone in Arctic governance, as it brought together the Arctic states and indigenous people to work towards common goals and address common challenges facing the region. The organization continues to play an important role in shaping Arctic policy and promoting sustainable development in the region, notwithstanding that its meetings have been paused due to the Russian invasion of Ukraine until further notice.

3.3. The Ilulissat Declaration

In 2008, representatives of the Arctic Five that border directly with the Arctic zone signed the *Ilulissat Declaration* in Greenland, a political statement with which they promised to resolve any potential territorial dispute among them through dialogue and based on the LOSC and the Council's decisions, emphasizing their stewardship role to protect the vulnerable ecosystem of the Arctic Ocean. [194] Concretely, they mentioned that "*by virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five coastal states are in a unique position to address these possibilities and challenges [...]*", underscoring the importance of UNCLOS in providing the necessary legal framework concerning the resolution of their territorial disputes, the delineation of the outer limits of their CSs and the dealing of other Arctic-

[193] From "Growing importance of the Arctic Council," *Strategic Comments, 19(4),* 2013, Routledge (https://doi.org/jtj3).

[194] The Ilulissat Declaration, 2008.

related issues.[195] Under the terms of this Declaration, in 2010, Russia and Norway settled outstanding issues regarding their maritime boundaries, while Canada and Denmark resolved long-lasting disputes concerning uninhabited rocky islets.

Following the *Ilulissat Declaration*, the eight Arctic States signed also, under the auspices of the Council, *the Arctic Search and Rescue Agreement* (2011), the *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic* (2013), and more recently, the *Agreement on Enhancing International Arctic Scientific Cooperation* (2017). [196] In the following meetings, the Arctic states will be bound to common positions for the future.

3.4. The Arctic natural wealth

The Arctic Circle contains a bounty of mineral resources. It possesses large oil and natural gas (n.g.) fields, minerals, and fish stocks that render the region very promising economically. The development of great international interest in the region is intertwined with the energy reserves. The region also is home to important freshwater resources, particularly important for the indigenous communities that rely on them for subsistence and cultural practices, and has significant potential for renewable energy production, particularly from wind and hydropower.

According to the "Circum-Arctic Resource Appraisal" (CARA), a survey published in 2008 by the USGS, it is estimated that the region holds around 13% of the world's undiscovered conventional oil resources and 30% of the undiscovered n.g. resources. Interestingly, the majority of these resources, it is estimated to fall within undisputed Arctic zones, that is to say within delineated maritime areas. Of course, this is about to change in the future, as the coastal states seek to extend their CS beyond 200 nm in the central Arctic Ocean.

More concretely, as per the USGS, the Arctic region holds roughly 10,5% of the world's oil reserves and 25,5% of the world's gas reserves. The enormous Arctic's gas potential is embodied, among others, in the discovery of the Shtokman field, in the late '80s in the area of the Barents Sea, which constitutes one of the largest n.g. deposits in the Russian Arctic and one of the largest globally. This Russian-controlled gas development is estimated to hold reserves of up to 4 trillion cubic meters (TCM) of n.g.[197] Another source of great importance seems to be the gas hydrates, found in Arctic waters, which are believed to constitute a very promising energy source, even though their extraction requires a rather complex process due to the lack of sufficient technology.

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[195] *Ibid.*

[196] From *The Arctic Council: A Quick Guide* (3rd ed. 2021/22, p.14.), by Arctic Council Secretariat, 2021 (https://oaarchive.arctic-council.org/handle/11374/2424).

[197] From *Shtokman Natural Gas Project, Barents Sea, Russia*, (n.d.), Hydrocarbons Technology (https://www.hydrocarbons-technology.com/projects/shtokman_gas_project/).

Taking into account both the Arctic shares of undiscovered fields and the devastating effects of climate change resulting in the retreat of Arctic sea ice, it can be deduced that the opening of new shorter shipping routes for reaching ports and destinations of economic interest renders the region much more accessible and attractive. In addition, the seabed and subsoil of the extended Arctic CSs, the establishment, and exploration of which are recently gaining more attention among the Arctic and non-Arctic states, are deemed to constitute the largest unexplored region of interest for natural resources worldwide.

Further, the region is rich in mineral ores like zinc, nickel, palladium, platinum, and cobalt, which are essential for many modern technologies, as well as precious stones, such as deposits of gold and diamonds. If the large rare-earths deposits are also taken into consideration, one can infer that the northern circumpolar region is regarded as absolutely vital for the global energy picture.

The above-mentioned valuable resources have caught the eye of both Arctic states and foreign governments in pursuit of enhancing their security of supply and export revenues. Several state-owned and private sector energy firms operating in the Arctic constitute a critical dimension of investment in energy developments, despite the high cost of drilling and the tight measures that the coastal states have taken for the protection of the fragile Arctic environment. According to data from 2012, the oil giant Royal Dutch Shell had invested approximately $5 billion in drilling activities in the area of Alaska's Chukchi Sea, while the oil company Cairn Energy had spent around $1 billion exploring for hydrocarbons in Greenland. In 2015, Shell decided to halt its large offshore exploration drilling operations for the foreseeable future, although it continues to hold exploration licenses in some Arctic areas of the US, Norway, Russia, and the Canadian Arctic, with no plans for further development of the current licenses. Meanwhile, the Russian companies Gazprom, Rosneft, and Novatek have expressed their intention to invest billions in the Russian Arctic, where there are already several collaborations with Western companies like ConocoPhillips, Exxon Mobil, Eni, and Statoil.

It is, thus, likely that in the years ahead, the pressure to explore and develop Arctic energy resources is going to increase between the Arctic states. Moreover, it is possible that, during the coming decades, energy companies will engage in deep seabed mining in several parts of the Arctic Ocean, through the "Enterprise", but for the time being such mining operations are considered very complex and demanding, due to the harsh climate conditions.

3.5. An Arctic resource war?

Although several scholars are of the view that the issue of conflict over Arctic resources is overestimated, revelations that the Arctic hosts a vast amount of proven and untapped natural

resources have fueled speculation that the region will become a future battleground for resources, where littoral states will compete to claim maritime spaces in pursuit of security of supply and increase in export revenues in light of the mounting increase in global energy demands.

However, it is deemed that because the majority of the large reserves lie within established boundaries and not within disputed zones, such as the Barents and Beaufort Seas, it is unlikely, under the present circumstances, that will cause a "resource war" between the rival claimants. In the meantime, the likelihood of imprecision and the lack of sufficient scientific proof about the exact amounts of resources and the issue of their recoverability may well prevent coastal states from resorting to military operations. Be that as it may, the ongoing climate change and the extension of claims over ECSs by the Arctic coastal states, render a so-called scramble for the Arctic more and more relevant.

3.6. Arctic reserves as an alternative to Russian gas

The exploration and exploitation of existing and potential Arctic gas reserves would serve the diversity of supply the European countries (and Asian markets) are seeking, as it would offer an extra source of energy supply that would reduce their dependence on Russian n.g. Given the recent Russian invasion of Ukraine and the subsequent Gazprom's disruption of n.g. deliveries to Europe via major gas supply routes (i.e., Nord Stream 1), as well as every so often threat of stopping the n.g. supplies during winter, the reserves of the Arctic region could constitute an alternative to future shortages. Moreover, the EU has shown many times in the past, as a result again of pricing and supply disputes between Russia and Ukraine, a keen interest in the Arctic's energy resources. More specifically, in 2008 published an EU document in which the Arctic was heralded as a "unique region of strategic importance which is located in [the] immediate vicinity of Europe and claimed that its resources could contribute to enhancing the EU's security of supply concerning energy and raw materials in general". [198]

However, developing these reserves poses several technical and economic challenges. Firstly, the harsh Arctic environment makes it difficult and expensive to extract and transport gas from the region. Frost-resistant infrastructure, such as pipelines and liquefied natural gas (LNG) plants, would need to be built, which would require significant investment. Secondly, the cost of developing Arctic reserves is likely to be higher than that of Russian gas, making it difficult for Arctic gas to compete on price, particularly if the cost of reducing emissions from gas production

[198] From *Communication from the Commission to the European Parliament and the Council - The European Union and the Arctic Region* (p. 6), 2008, European Commission (https://op.europa.eu/en/publication-detail/-/publication/01d2123a-44dd-4608-8006-bcb77badd92a/language-en.)

and transport is factored in. Finally, there are also concerns about the environmental impact of developing Arctic gas reserves, particularly in light of the vulnerable Arctic ecosystem.

Despite these challenges, as it is discussed below, some countries and companies are exploring the potential of Arctic gas as an alternative to Russian gas. For example, Norway is already a significant producer of n.g. from the Arctic region, and there are plans to develop new fields in the Barents Sea. The Russian Federation itself is also investing in developing its own Arctic gas reserves, which could help to secure its position as a dominant gas supplier to both Europe and Asia.

3.7. A resource war for fish stocks?

Besides mineral resources over which coastal states have occasionally engaged in disputes for their exploration and utilization, the Arctic is also home to marine living resources, i.e., fisheries, including cod, herring, and salmon, whose access and exploitation rights over the last few decades have also generated some degree of tension among Arctic coastal states, given the fact that their economies are heavily dependent on them as a source of prosperity and food security.

Some recent striking examples of disputes over fisheries are, among others, the mackerel conflict in the Northeast Atlantic, the snow crab conflict in the Barents Sea, and the dispute over the status of the Svalbard Fisheries Protection Zone (FPZ) in the Barents Sea. [199] Further, some examples of disputes over fishing rights from the past, such as the "Cod War" in the '50s between Britain and Iceland in the North Atlantic, demonstrate that disagreement over how to best allocate and manage marine living resources has the potential to escalate into a serious source of conflict.

In several maritime domains of the Arctic, like the Barents Sea and the Bering Strait, the possibility of tensions brewing up over fish stocks remains high, notably due to the impact of climate change, which is likely to increase the fishing activity in the Arctic, especially in areas that are not ice-covered year-round like a few decades ago. More specifically, the ice thaw and the changes in the geographical stock distribution coupled with the rising demand might make the Arctic resource disputes much more relevant than in the past. Recently, as the ocean gets warmer, several fish species migrate northward, to colder areas, occasionally extending their habitats to waters that belong to the jurisdiction of another coastal state, affecting thereby fishermen's catch and revenues.

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[199] From Fish, not Oil, at the Heart of (Future) Arctic Resource Conflicts (p.2), by A. Østhagen, 2020, *Arctic Yearbook 2020* (https://arcticyearbook.com/arctic-yearbook/2020/2020-scholarly-papers/341-fish-not-oil-at-the-heart-of-future-arctic-resource-conflicts)

Given that the circumpolar region hosts some of the world's most largest and valuable fish stocks, the establishment of effective management regimes, notably among the Arctic states, is rendered imperative, to alleviate such pressures and prevent the unsustainable control of stocks. Several initiatives for fishing regulation had already been taken in the past to strengthen cooperation. An illustrating example of such regional issue-specific cooperation is the *Joint Norwegian-Russian Fisheries Agreement*, which was reached in 1975 to manage fish stocks in the Barents Sea, often being heralded as one of the best practices of marine resource co-management. [200] Further, the *Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean,* signed, in 2018*,* among the Arctic Five along with five other interested actors (i.e., China, Japan, Iceland, South Korea, and the EU), constitutes a more recent example of a co-management mechanism aiming to prevent unregulated commercial fishing in the high seas of the Central Arctic Ocean. The latter effort was considered a proactive approach, as part of a long-term management strategy for the fish stocks in light of climate change, to ensure the conservation and sustainable use of fish stocks, and facilitate joint scientific research in the said region. [201] However, in some areas, which are still ice-covered for at least half of the year, such as the Bering Strait, the fisheries cooperation is not such intensive, albeit the said strait constitutes a unique choke point for the vessels, being the only connection between the Arctic Ocean and the Pacific Ocean.

Further international and/or regional governance mechanisms shall be set up in the future for the management of marine areas and resources, in order to avoid the over-exploitation of stocks that would lead to a worst-case scenario for all states concerned, given that the Arctic region is particularly prone to environmental changes.

As history has shown, these disputes have been kept separate from Arctic governance issues, even though disputes and at times conflicts between Arctic coastal states over fisheries have been commonplace. However, occasionally fisheries disputes are entangled in domestic politics requiring both political engagement and concern to be managed or even resolved. According to some scholars, it is likely that fish stocks and not mineral resources, like gas and oil, will be at the heart of future Arctic resource conflicts, without this implying that these disputes are bound to escalate into outright tensions. [202]

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[200] Østhagen (2020), p. 10.

[201] See Agreement to prevent Unregulated High Seas Fisheries in the central Arctic Ocean (https://www.mofa.go.jp/files/000449233.pdf).

[202] Østhagen (2020), p.11.

3.8. The Indigenous People

The indigenous people, that represent around 10% of the Arctic's inhabitants, live in the Arctic Circle in absolute connection and dependence on the natural environment in the context of a historical and cultural tradition of thousands of years. As it was mentioned above, they participate in the Council through six non-governmental organizations that have committed to projecting the requests and the needs of the regional tribes. As Permanent Participants in the Council, they do not have just voting rights but also they are actively involved in the decision-making for the future of the circumpolar region. The Arctic states shall consult them regularly before the decision-making process, as their survival depends on these decisions. Nevertheless, while the coastal states seek to further "territorialize" their interests, it is observed that a raft of analyses from geopolitical researchers tends to lose sight of the political presence of the local communities, being less mindful of their rights and needs.

It is trite to mention, however, that the shifting Arctic climate affects the indigenous in various ways. In fact, the survival of the indigenous people, which is based on the traditional way of life, mainly seal hunting and fishing, has already been endangered, due to climate change. It is not uncommon for the indigenous people to act against their governments, accusing them of abandonment and limited opportunities in comparison with those offered to the residents of the more southern regions.

As a matter of fact, given the imperative need for taking actions aiming at strengthening resilience and facilitating adaptation of the local people and communities, many international organizations, such as the International Labour Organization (ILO) and the UN Permanent Forum on Indigenous Issues (UNPFII), make considerable efforts to support the rights of the indigenous people in the Arctic Circle. For example, Convention No 169, which was adopted in 1989 by the International Labour Conference of the ILO and ratified by 22 member states of the ILO, constitutes a critical step toward the international recognition and the safeguarding of the rights of the indigenous and tribal people to the possession of land and natural resources, among others. [203]

Further, the UN Declaration on the Rights of Indigenous Peoples (UN-DRIP) was adopted by the General Assembly, in 2007, by 144 states. Notably, the Declaration was disaccorded by four states: Australia, Canada, New Zealand, and the US, two of which are members of the Council. Since then, fortunately, the four states have reversed their positions and now support the Declaration. The voting procedure marked also 11 abstentions, among which was the Russian Federation, one of the five Council states. The Declaration established a universal framework for the survival of the indigenous people, confirming their rights to the land and the areas they

[203] ILO Convention, 1989 (No. 169), Article 14.1 & 15.

possess, and the natural resources of the region, as they traditionally belong to them. They are also granted the right to self-determination-if they desire it- and the freedom to social, economic, and cultural development. [204]

As far as self-determination is concerned, there are already some tribes that exercise this right in the framework of living within the Arctic states. This is evident in the case of the Saami people that has autonomous institutional power (Saami Parliament or the Sámediggi) in Norway since 1987, Sweden since 1993, and Finland since 1996. Particularly, Saami people are indigenous people who expand across four countries: Norway, Sweden, Finland, and some parts of Russia's Kola Peninsula. Even though there is no census for its population, it is estimated at around 80.000 people with the majority living in North Norway. However, the joint Nordic Convention which has been composed of the Sami parliaments and aims at enhancing their political position has not yet been approved by the governments of the Nordic states.

Another important example constitutes the self-governing areas of Greenland, where the indigenous Inuit live, with a population estimated at around 89% of the total. To this end, in 2009, the *Circumpolar Inuit Declaration on Sovereignty in the Arctic* was issued which re-positioned the Arctic Ocean as integral. Article 1.1. of the said Declaration states that "*Inuit live in the Arctic. Inuit live in the vast, circumpolar region of land, sea, and ice known as the Arctic. We depend on the marine and terrestrial plants and animals supported by the coastal zones of the Arctic Ocean, the tundra, and the sea ice. The Arctic is our home*." [205]

Remarkably, concerning the decisions that are taken and the presence of military systems, the indigenous people are never asked from any of the countries involved. Thus, the Indigenous have reacted by requesting the recognition of their rights and their contribution to the decision-making process. As Greenland is overwhelmingly inhabited by the Inuit people, it is likely that in the short term, it will become the first Inuit-governed state in the world, as the Inuit seek to gain more independence.

At this point, it should be highlighted that according to the "Greenland Home Rule Act" of 1978, Greenland was recognized by the Kingdom of Denmark as a "Special Community" and became a distinct community within the Kingdom of Denmark. In this context, Greenland has home rule authorities, namely its government exercises legislative and executive power and makes all the critical decisions on behalf of its residents. Further, according to the "Greenland Self-Government Act" of 2009, more freedoms and rights are granted to the indigenous people,

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[204] From UN-DRIP, Article 26.1, 26.2 & 3.

[205] From *A Circumpolar Inuit Declaration on Sovereignty in the Arctic*, 2009 (http://library.arcticportal.org/1895/1/Declaration_12x18_Vice-Chairs_Signed.pdf).

notably including the absolute right to the natural resources of the region. With this Act, they can further decide on policing and all the justice services.

Moreover, the LOSC recognizes the traditional fishing and hunting rights of indigenous people in certain maritime zones, under the principle of continuity, which provides for the non-alteration of the indigenous people's entitlements in cases of allocation/delimitation of a marine area under the sovereignty or jurisdiction of a coastal state, based on prior/traditional use. [206] Put tersely, existing traditional rights remain unaffected in light of the change in the ocean space status, and coastal states are obliged to take into account the said rights while delimiting their maritime boundaries. [207]

3.9. Arctic Coastal States

3.9.1. Russian Federation

The Russian Federation is considered to be the greatest Arctic power among the coastal states of the region, holding both the longest Arctic coastline (approx. half of it) and the largest Arctic population (approx. two million people). In particular, the Russian Arctic zone's contribution to the country accounts for around 10% of its GDP and approximately 20% of its exports [208], while it represents about 70% of the Arctic region's GDP [209]. The development of the Arctic is a high priority for Russia, a fact that is reflected both in the country's Arctic policy for the period 2020-2035 and in its new Maritime Doctrine, signed in July 2022 by Russian President Vladimir Putin, replacing the previous one from 2015. In the said Doctrine, the Arctic Ocean is ranked first among the world's oceans in terms of its viability for Russian interests. In this respect, it outlines, among others, the priority needs of the Arctic, as the melting of sea ice, together with the Chinese interest in the region (see section 3.9.8.), and NATO expansion into the High North Sea render the Russian northern shores critical for defense and growth. As will be discussed in Chapter 6, "Foundations of state policy of the Russian Federation in the Arctic for the period up to 2035" declare that one of the main national interests in the Arctic is the development of the

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[206] From *The Legal Implications of the 2022 Canada-Denmark/Greenland Agreement on Hans Island (Tartupaluk) for the Inuit Peoples of Greenland and Nunavut,* by A. Tsiouvalas & E. L. Enyew, 2023, The Arctic Institute (https://www.thearcticinstitute.org/legal-implications-2022-canada-denmark-greenland-agreement-hans-island-tartupaluk-inuit-peoples-greenland-nunavut/).

[207] *Ibid.*

[208] From *Investments in Russian economy in Arctic to exceed $86 BLN until 2025*, 2019, TASS (https://tass.com/economy/1051080).

[209] Abdel-Motaal (2020), p. 367.

Northern Sea Route (NSR) as a competitive national transportation passage in the world market and the implementation of the State Policy in the Arctic region will ensure, among others, increasing national and international cargo shipping volumes along the NSR. [210]

The paradox lies in the fact that despite the domestic turbulence it encounters, the country makes considerable efforts to restore its position as a great power in the international environment and to strengthen its influence as a maritime power, mainly in the Arctic and Atlantic. On the one hand, it faces financial and demographic problems and issues related to the modernization of the armed forces, while on the other hand, it desires to regain its lost influence of the Soviet Union (USSR) era in the world arena.

Much attention has been drawn to the planting of the Russian flag in the Arctic seabed at around 4.300 m depth beneath the North Pole, in 2007, during a Russian-led expedition, that constituted a worldwide symbolic move. By this expedition, led by the polar explorer, Artur Chilingarov, Russia sought to reinforce its claim over the uncharted marine territory, asserting that the seabed under the North Pole, known as the Lomonosov Ridge, shall be regarded as an extension of Russia's CS and hence, Russia's territory. [211] As a consequence, this move stirred controversy both in the neighboring coastal states and the international community expressing their immediate disapproval of the expedition, with then Canadian Foreign Minister declaring that "*this isn't the 15th century, …You can't go around the world and just plant flags and say, 'We're claiming this territory*". [212] The said action not reflected only Russia's foreign policy priorities but also alerted the international community over the resource-rich Arctic region.

Since Russia holds the largest piece of the Arctic, it prevails over its resources, i.e., it holds about 95% of its gas and 75% of its oil. [213] The exploitation of the Arctic zone has created a competitive environment among the various interest groups and companies within Russia, which aims to increase drilling activities in the region. Gazprom, Rosneft, and Novatek are the three companies operating in the region, with the latter aspiring to become the largest Russian producer and exporter of n.g. Russia is rapidly moving towards hydrocarbon exploitation, pledging a huge budget to build equipment for oil and gas exploration and production in the Arctic, establishing icebreaker fleets, and modifying the Russian Arctic navigation code, creating conditions of protectionism in favor of Russian interests. In addition, in 2020, Russian President

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[210] From *Foundations of the Russian Federation State Policy in the Arctic for the Period up to 2035* (RMSI Research. 5), by A. Davis & R. West, 2020, Russia Maritime Studies Institute (https://digital-commons.usnwc.edu/rmsi_research/5/).

[211] From *Russia plants flag under North pole,* 2007, BBC news (http://news.bbc.co.uk/2/hi/europe/6927395.stm).

[212] From *Russians Plant Flag on the Arctic Seabed*, by C. J. Chivers, 2007, The New York Times (https://www.nytimes.com/2007/08/03/world/europe/03arctic.html).

[213] Abdel-Motaal (2020), p. 367.

Vladimir Putin adopted the new "Strategy for Developing the Russian Arctic Zone and Ensuring National Security through 2035", and stressed that 10% of public investment, at the federal level, will be directed to the Arctic. Part of this new Arctic strategy is the new system of tax benefits for companies investing in the Arctic. In 2018, the Vice Presidents of the Russian Government proposed private investments to be launched in Russia's Arctic CS and a bill to be concluded to extend access to the region, as state-owned companies, Gazprom and Rosneft, are currently the only ones authorized to operate in the area, according to the Russian legislation. Of course, it is likely that in the short term, private oil and gas firms will also be allowed to operate on Russia's Arctic shelf. Russia has also set the goal of restricting the rights of foreign companies to the transport of hydrocarbons produced in the region. This is partly because Russia is trying to strengthen the industry of icebreakers and gas tankers.

Further, the thawing permafrost permits the crossing of the NSR, a fact that will attach even greater geopolitical importance to its maritime borders (see section 6.3.). The increase in international navigation flows through its maritime borders is expected to boost Russia's profits exponentially. In this context, it has imposed fees for the transit of foreign oil tankers through the NSR for having access to the Arctic Circle. Despite the economic importance that Russia attributes to the region, the strategic one remains also important. The military naval bases in the region are equipped, upgraded, and adapted to the distinct role of the power projection of the coastal state. Within the Arctic Circle, there are also Russian bases with increased nuclear capabilities. All in all, it seems that lately, Russia is increasing its assertive behavior pursuing both a military and an economic expansion in the said region, within the framework of its aggressive foreign policy.

3.9.2. Canada

Canada as a country bordering on the Arctic Circle is not just the founding member of the Arctic Council, but also a country with major strategic national interests in the said region, as nearly 40% of its land mass belongs to the Arctic and about 150.000 inhabitants live in Canada's Arctic.[214] Hence, it considers the Arctic Circle as part of its spatial entity, with its interests conflicting with those of the Russian Federation with which it has long-standing border disputes. Canadian Arctic is vast and relatively uninhabited and it is used as a "buffer zone" for its protection from potential geopolitical tensions with adjacent states.

Canada has upgraded its military presence and installations in the region. It has chaired the Arctic Council two times since its establishment (from 1996 to 1998 and from 2013 to 2015) with the main priorities being enhancing cooperation between the indigenous people (i.e.,

[214] From *Canada*, by H. Kutz, (n.d.), Arctic Council (https://www.arctic-council.org/about/states/canada/).

Athabaskan, Inuit, and Gwich'in) and Arctic states, environmental protection and climate change. The transformation of the Arctic into a warmer environment and the increasing accessibility in the region, e.g., with the Northwest Passage (NWP), raise concerns in Canada and all the neighboring countries, which are reflected in the respective policy frameworks. To this purpose, the lack of major infrastructure along the Canadian north limits Canada's military capabilities in the region, while being less stressful for the environment.

3.9.3. The Kingdom of Denmark

The Kingdom of Denmark consists of three parts: Denmark, Greenland, and the Faroe Islands.[215] Denmark geographically belongs to the Arctic region on behalf of Greenland, whose ice cap covers about 80% of its area and has the lowest population density worldwide. It should be noted that both Greenland and the Faroe Islands have home-rule governments which have updated through the various Acts that have been signed (i.e., the "*Takeover Act on Power of Matters and Fields of Responsibility and the Act on Faroes Foreign Policy Powers*" of 2005 and the "*Greenland Self-Government Act*" of 2009). [216]

As a member of the Arctic Council, Denmark expresses its views on security issues and the future of its economy. During Denmark's Chairmanship of the Arctic Council from 2009-2011, the *Nuuk Declaration* was adopted, which among other things set a basis for the strengthening of Arctic cooperation and the enhancement of the leadership of the Arctic Council to mitigate the human intervention and environmental impacts of the climate change in the region, through the implementation of various projects and working groups, such as the *Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic (SAR)*, as the first legally binding agreement negotiated under the auspices of the Council. [217] Moreover, two new reports were published in 2016, the *Danish Diplomacy and Defense in a Time of Change Report* and *the Ministry of Defense's Future Activities in the Arctic Report,* which draw attention to Denmark's status as an "Arctic great power" willing to pursue its strategic interests in the region. [218]

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[215] From *The Kingdom of Denmark*, by T. Winkler, (n.d.), Arctic Council (https://www.arctic-council.org/about/states/denmark/).

[216] *Ibid.*

[217] From *Nuuk Declaration*, 2011 (https://oaarchive.arctic-council.org/bitstream/handle/11374/92/07_nuuk_declaration_2011_signed.pdf?sequence=1&isAllowed=y).

[218] From "An Arctic Great Power"? Recent Developments in Danish Arctic Policy, by J. Rahbek-Clemmensen, 2016, *Arctic Yearbook, 5,* p.346-347 (https://findresearcher.sdu.dk/ws/files/129580208/An_Arctic_Great_Power._Recent_Developments_in_Danish_Arctic_Policy.pdf).

The Kingdom of Denmark Strategy for the Arctic (2011-2020), aimed at the development of the region concerning the Arctic population, peaceful cooperation, and avoidance of militarization, expired at the end of 2020. Importantly, it follows suit with the other Arctic coastal states in its commitment to a cooperative approach in its High North policy, continuing the long-standing trend of its foreign policy. The next Arctic strategy, when adopted, is likely to give Greenland and the Faroe Islands a more prominent role in the Arctic Council. [219]

Denmark has several border disputes with Canada as far as some islands between Greenland and the coasts of North Canada are concerned (e.g., the Lomonosov Ridge), which have recently begun to get larger dimensions. Moreover, the US nuclear-powered military base in Greenland (i.e., Thule Air Base in Northwest Greenland), lying there since the Cold War era, was not abandoned, but on the contrary, went through an operational upgrade in 2004, albeit the geostrategic importance of Greenland diminished after the '90s and its operational defense was not deemed a policy priority. The latter, however, has reversed during the last years with the new threat of Russia keeping the whole of Europe on its toes and the recent opening-up of the Arctic waters, facts that render the need for improved defense capabilities imperative. The up-to-date equipment of the US military base has enraged the Russians, who perceived the said movements as a threat to their national security. Of great importance also is the mining sector of Greenland which recently has been exploited by Chinese investments, with the most blatant example being the mining joint venture of Kvanefjield in Southern Greenland. [220]

3.9.4. Norway

North Norway accounts for 35% of Norway's mainland territory, and around 9% of Norway's population lives north of the Arctic Circle. [221] While the latter represents the larger proportion worldwide since the '70s a population decline has been observed in North Norway, mainly due to urbanization, with serious implications for the traditional way of life of the indigenous people, i.e., the Saami people, who since 1989 have their own elected assembly (the Sámediggi).

For Norway, the Arctic Circle is vital not only for the aquaculture and fisheries sector which are considered the largest export sectors in the Norwegian Arctic but also for the oil and n.g. reserves

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[219] From *Greenland's more prominent role on Arctic Council important signal to Int'l community says the foreign minister*, by E. Quinn, 2021, Eye on the Arctic (https://www.rcinet.ca/eye-on-the-arctic/2021/06/18/greenlands-more-prominent-role-on-arctic-council-important-signal-to-intl-community-says-foreign-minister/).

[220] Abdel-Motaal (2020), p. 368.

[221] From The Norwegian Government's Arctic Policy: People, opportunities and Norwegian interests in the Arctic, by Norwegian Ministry of Foreign Affairs; Norwegian Ministry of Local Government and Regional Development; Norwegian Ministry of Trade, Industry and Fisheries; Norwegian Office of the Prime Minister, 2021 (https://www.regjeringen.no/en/dokumenter/arctic_policy/id2830120/#tocNode_2).

lying under its seabed. Interestingly, Norway is the only European country that exports oil and n.g., supplying around 2% of global oil consumption and covering around 3% of the global n.g. demand. Almost all Norwegian oil and gas produced in the country is exported to European countries. More concretely, it is estimated that around 95% of its gas is transported through a network of subsea pipelines, covering about 20-25% of the n.g. consumption in Europe. It is expedient to note that Norway's CS (NCS) is three times larger than the total surface area of the country (approx. 385.200 km^2), with the wealth of natural resources that have been discovered in its seabed being largely responsible not only for the economic growth of the country but also for the cross-border dispute between Norway and Russia in the Barents Sea area.

Since 2015, the Polarled pipeline, a gas infrastructure that crosses the Arctic Circle, operates transporting gas from the Aasta Hansteen gas field in the Norwegian Sea to the processing plant in Nyhamna, Western Norway, and from there to the UK and mainland Europe, through the Norwegian gas pipeline network. The new Polarled pipeline opened a new field for the extraction of n.g. and is likely to encourage the research and development of such deposits. On the other hand, the country is also Europe's biggest producer of hydropower in Europe and ranks 6th worldwide. At this point, a paradox can be distinguished that lies in the fact that while, for decades, Norway has had a leading role in renewable energy, aiming to become a low-carbon society by 2050 [222], in cooperation with the EU, and its approach to conserving its Arctic areas can be described as the most sustainable in Europe, half of its total exports are still linked to oil and n.g. and continues to open the Arctic to more oil drilling by announcing more rounds of Arctic licensing awards.

The balance of bilateral relations and multilateral cooperation with the rest of the Arctic coastal states and non-Arctic states, based on respect for international law, ensure its national security and economic stability. Norway, under NATO, to strengthen the Alliance's capacity to plan and lead collective defense operations in the region, carries out joint operations with Allied forces in the North. [223] Its high-level strategic initiatives are reflected in the broad-based cooperation it maintains with Russia over the past 30 years in various fields, such as fisheries management in the Barents Sea, research, nuclear safety, and security (Norwegian-Russian Commission for Nuclear Safety), environmental protection (Joint Norwegian-Russian Commission on Environmental Protection) and search and rescue. Despite their differences over fishing rights in the context of the existence of disputed maritime areas, no important rupture of their relations is foreseen, because of an informal moratorium they have signed. Notwithstanding that Norway is a

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[222] From *Environmental Policy Integration with the Existing Arctic Strategies*, by E. Uryupova, 2022, The Arctic Institute (https://www.thearcticinstitute.org/environmental-policy-integration-existing-arctic-strategies/).

[223] See supra note 221.

NATO member, after the end of the Cold War, upgraded its cooperation with Russia in the framework of the neighborhood for mutual benefit. Nevertheless, since Russia's violations of international law in Ukraine in 2014, let alone the invasion of Ukraine in February of 2022, Norway has taken a cue from the rest of Europe in isolating Russia, by suspending bilateral military cooperation, except for areas of particular importance in the North. [224] The so-called Norwegian adage "High North, Low Tension", which has long been applied to the Arctic, and in particular on the Russian-Norwegian frontier for decades, has been called into question.

3.9.5. The USA

The US, which became an Arctic nation in 1867, upon the purchase of Alaska, [225] has varied national interests in the Arctic zone, such as national and homeland security, environmental protection, sustainable development, and promoting cooperation and collaboration with the other Arctic states, intervening either unilaterally or jointly with other countries to safeguard these interests. The tone that the US uses to define its interests is particularly harsh. As a member of the Arctic Council, it considers the Council an institution for the environmental development and the protection of the region, while at the same time, it is still seeking access to the region and setting limits to its cooperation with the other Arctic states. It is worth mentioning that even for a marine area —a narrow passage in the Beaufort Sea of 6.000 nm— extremely rich in fisheries but disputed between Canada and the US, the latter proceeded with a unilateral ban on fishing projecting its interests. Similar border disputes, which will be analyzed in the relevant Chapter, existed also between the US and the Russian Federation.

Meanwhile, the US has limited emergency response capabilities in ice conditions, given the lack of "ice-capable" infrastructure (i.e., ice-class vessels and an icebreaker fleet), as the Federal Government has failed to invest substantially in the region, with financial considerations being cited as the primary reason the US is unable to fund the requisite services in the Arctic. By not asserting its sovereign authority in the Arctic consistent with the other Arctic nations, and in particular with Canada and Russia (see the US approach of Article 234), the US has so far failed to protect its territory and citizens living in the only US Arctic region, i.e., Alaska, who still rely upon subsistence activities for survival and livelihood. [226]

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[224] From *A new iron curtain is eroding Norway's hard-won ties with Russia on Arctic issues*, by Q. Lawrence & C. Donevan, 2022, NPR (https://www.npr.org/2022/04/30/1092639702/russia-norway-nato-arctic-council).

[225] From *The United States,* by L. J. Crishock, (n.d.), Arctic Council (https://www.arctic-council.org/about/states/the-united-states/).

[226] From "Article 234 of the United Nations Convention on the Law of the Sea: The Overlooked Linchpin for Achieving Safety and Security in the U. S. Arctic?", by S. P. Fields, 2016, *Harvard National Security Journal, 7*, p. 109 (https://harvardnsj.org/wp-content/uploads/2016/02/Fields-PUBLISH.pdf).

Moreover, major energy companies are diverting from their traditional energy ventures in Alaska and promoting a transition into renewable energy projects. Therefore, the lack of infrastructure along with environmental concerns, which are incorporated into a broad spectrum of policies, has reduced its hydrocarbon extraction activity in the said region, rendering its presence in the region less active, in comparison with the rest of the Arctic states. Nevertheless, the country's strategic interests in the region cannot be underestimated, as it has consistently revived its Arctic policy over the past years through the publication of new policies by the Ministry of Defense, the Navy, the Air Force, and the Coast Guard, participates in various exercises and exerts influence in the region through the NATO Alliance and partners among the Arctic states. [227]

3.9.6. Iceland

Besides the Arctic Five with a coastline on the Arctic Circle, there are three more coastal states with strategic and economic interests in the region, namely Iceland, Sweden, and Finland, which participate in the Arctic Council, since their territory lies partially north of the Arctic Circle, but they lack coastal fronts on the Arctic Ocean. From these three states, the case of Iceland is worth an analysis, given the country's strategic location at the entrance and exit of the Arctic Ocean, which will further be enhanced with the extending ice retreat.

Iceland geographically belongs to the Arctic region (i.e., lies south of the Arctic Circle, but its territorial waters extend into the Arctic Circle [228]), using its position to promote itself as an Arctic coastal state, including the area of environmental policy that represented one of the major pillars of Iceland's Chairmanship in the Arctic Council in 2019-2021[229], but it is not a member of the Council. It is also the only Arctic State which is not inhabited by indigenous people. Interestingly, in recent years, major diplomatic efforts have been made by the Icelandic government to be recognized as the sixth Arctic Ocean coastal state, mainly due to concerns that the Arctic Five might have been seeking to establish an informal intergovernmental forum to develop domains of common interest, excluding the three Arctic states whose territory lies partially north of the Arctic Circle. [230]

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[227] From *Russia and the Future of the Arctic* (Working paper No. 336, pp. 24-25), by N. Kapoor, 2021, Observer Research Foundation (https://www.orfonline.org/wp-content/uploads/2021/10/ORF_OccasionalPaper_336_Russia-Arctic.pdf).

[228] From After the ice melts: Conflict Resolution and the International Scramble for Natural Resources in the Arctic Circle, by W. Tan & Y. Tsai, 2010, *Journal of Politics and Law, 3(1),* p. 92 (https://doi.org/jzbm).

[229] Uryupova (2022), supra note 222.

[230] From *Polar Oceans: Sovereignty and the Contestation of Territorial and Resource Rights* (pp. 576–591), by K. Dodds & A. D. Hemmings in H. D. Smith, J. L. Suárez de Vivero, & T. S. Agardy (Eds.), Routledge Handbook of Ocean Resources and Management, 2015, Routledge (https://doi.org/jzbn).

The unilateral decision of the US to withdraw from its military base in Iceland demonstrated the American shift from the options that had chosen to follow during the Cold War era. This movement does not imply a change of position concerning the reservations they keep with the neighboring countries, especially with the Russian Federation, but it relates more to the rapidly melting Arctic and the challenges that emerge from the boundary changes. From 2006 to 2008, the Icelandic government, after the withdrawal of the American military base, which exposed the country to a security deficit, revised its opinion on its strategic position and its political security. Therefore, it invested in its relations with NATO, developing both its air defense and its bilateral relations with Norway, Denmark, and the UK in the security domain. Iceland keeps a low profile concerning its relations with Russia, avoiding, though, an increase in the NATO air patrols. Moreover, Iceland cooperates closely with the Alliance within the Arctic Council.

Moreover, as stated by the Icelandic Minister for Foreign Affairs in 2007, its geographical ideal position could make it a potential transshipment hub for Arctic shipping and would also allow it to become a key provider of icebreaker services to improve accessibility in frozen waters. [231]

As far as the Arctic actorness of the other two states is concerned, albeit they do have access to the Arctic Ocean, not holding, though, any kind of sovereignty over the respective waters, they participate in the regional cooperation frameworks and have certain stakes over Arctic issues.

At this point, it is expedient to note that over the last decade, apart from the traditional Arctic states, the High North region has also received growing attention from non-Arctic actors, and international organizations, led by the EU, which are actively involved in Arctic-related activities and enjoy rights of navigation and marine scientific research, seeking to achieve in different areas of marine jurisdiction. From these, special reference shall be made to the EU Arctic policy, and emerging Chinese Arctic policy.

3.9.7. EU Arctic Policy

The EU has significant stakes in the Arctic region on territorial, legal, economic, environmental, and research dimensions among others, all of which comprise its "Arcticness", even though it has a *de facto* observer status in the Arctic Council (since its application in the 2013 Kiruna Ministerial Meeting to obtain a formal observer status was rejected mainly due to the 2009 EU Regulation on the ban of seal products on the EU's single market[232]). Be that as it may, the EU is regarded as an Arctic actor, even though it does not have a shoreline on the Arctic Ocean since

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[231] Humpert & Raspotnik (2012), p. 298.

[232] See *Regulation (EC) No 1007/2009 of the European Parliament and of the Council of 16 September 2009 on trade in seal products*, 2009, Official Journal of the European Union, L 286/36 (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009R1007).

Greenland withdrew from the European Economic Community (EEC) in 1985. However, it exerts its direct influence over the Arctic through its northern territories, namely through Denmark (the only EU member state of the Arctic Five), Finland, Sweden, and the two countries that belong to the EEA (European Economic Area) agreement, namely Norway and Iceland.

The EU Northern Dimension (ND) Policy, a common policy comprising four partners (i.e., the EU, the Russian Federation, Norway, and Iceland) adopted in 1999 and revised in 2006 with the aim to designate through the Council policies concerning, among others, the protection of the fragile Arctic environment, public health, well-being, and culture of the indigenous people and communities living in the European Arctic and enhance regional cooperation in the European North. [233]

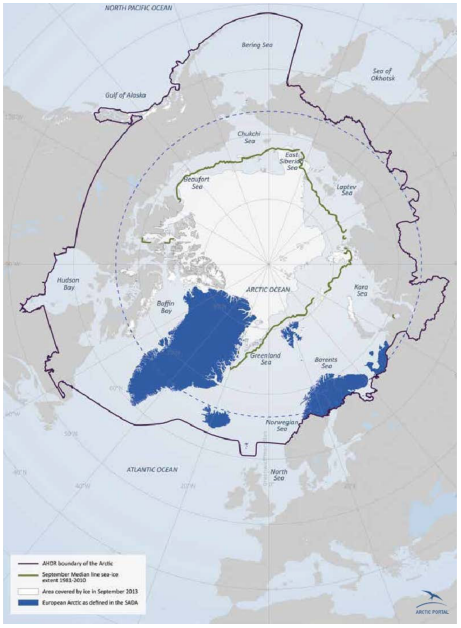

Fig. 3.4.: European Arctic as defined in the Strategic Assessment of Development of the Arctic (Source: Arctic Centre, University of Lapland)

Regarding the security policy, the EU declares a framework of peace, stability, responsible development, and the cautious exploitation of natural resources. As far as the latter is concerned, the EU member states seek new exploration and exploitation prospects of natural resources in the Arctic, due to the increased energy demand in light of the current imperative need for the European independence of Russian imports and the extended sea ice retreat, to meet their energy needs diversifying and increasing the security of supply. Nevertheless, the renewed EU policy proposed a ban on future hydrocarbon projects within the context of its rather ambitious commitment to become carbon-neutral by 2050.

The EU published its first Joint Communication on Arctic matters in 2008 and since then it updates its Arctic policy every so often, with the latter update adopted in October 2021 with the publication of the "*Joint Communication on a stronger EU engagement for a peaceful, sustainable and prosperous Arctic*" [234]. It is thus deduced that the EU policy approach for its northern neighborhood is a dynamic process, aiming to formulate with each update a more coherent and integrated framework for the Union's engagement in the Arctic region.

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[233] From *Exploring the Northern Dimension* [Fact sheet], 2020, Northern Dimension (https://northerndimension.info/wp-content/uploads/2021/06/Fact_Sheet-Exploring_the_Northern_Dimension.pdf).

[234] See *Joint Communication on a Stronger EU Engagement for a Peaceful, Sustainable and Prosperous Arctic* [JOIN(2021) 27 Final], 2021, European Commission and High Representative (https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021JC0027&from=EN)

To get more actively involved in the Arctic in the years to come and affirm its recent self-portrayal as a geopolitical actor [235], the EU has to intensify its efforts in the European Arctic, by enhancing its financial Arctic research through new research projects and by decreasing its environmental footprint through the promotion of innovation and the transition to a low-carbon economy.

3.9.8. Chinese Arctic Policy

China's accession to the Arctic Council with observer status has shifted several dynamics within the region [236], with its involvement in Arctic affairs being of utmost importance, notably in light of the current global crisis. More concretely, as an Arctic Council permanent observer since 2013, China is engaged in the Arctic multifacetedly, as it has interests, among others, in accessing the region's economic resources, namely the fishery stocks and other living resources, in participating in resource development projects such as the Yamal LNG and Arctic LNG 2, which are considered the largest investment projects within the Russian Arctic, and in investing heavily in local infrastructure. Another field of China's Arctic interest is the potential of navigation via the commercial exploitation of the NSR which will soon become ice-free for longer periods, as global warming increases. For this purpose, China possesses two operational icebreakers, the newest of which recently completed its first Arctic expedition. China has also established research stations in Iceland, and Norway (Svalbard), and has conducted joint scientific expeditions with other Arctic states.

In its White Paper concerning its Arctic policy, published in 2018, China perceives itself as a "Near-Arctic State" and highlights its vital role in Arctic affairs. It is pertinent to note that China's Arctic interests are outlined by its vision of the Polar Silk Road (PSR), as an extension of its global Belt and Road Initiative (BRI), meaning the creation of a network of transport infrastructure utilizing the routes of the Arctic Ocean. To this end, China needs to intensify its cooperation and dialogue with the surrounding states.

Further, as far as the mineral resources of the Arctic region are concerned, China believes that they should be touted as the commonwealth of mankind, and thus they should be distributed according to the priorities and the interests of each party. In this context, China views the Arctic

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[235] From *Continuity with Great Confidence: The European Union'a 2021 Arctic Policy Update* (p.1), by A. Stępień & A. Raspotnik 2021, The Arctic Institute (https://www.thearcticinstitute.org/wp-content/uploads/2021/10/Continuity-with-Greater-Confidence-The-EUs-Arctic-Policy-Update-2021.pdf).

[236] From *Changing contours of Arctic politics and the prospects for cooperation between Russia and China*, by M. Rehman, 2022, The Arctic Institute (https://www.thearcticinstitute.org/changing-contours-arctic-politics-prospects-cooperation-russia-china/).

region as an international marine environment, where all parties concerned should seek mutual benefits, and not as a region with exclusive sovereign rights of the Arctic states.

However, taking into account the global Chinese foreign policy, it can be deduced that the country has interests in the Arctic in a way that pursues objectives from its active involvement in other parts of the world, including the Antarctic where it has established numerous bases, as its superpower status is gradually growing. Therefore, its growing presence in the region has raised concerns among the Arctic states about China's intentions and potential impacts on the region's security and stability. It can be, hence, concluded that the Arctic is of global interest, albeit it can be considered as an arena of confrontation in other regions of the world, being dragged into a more systemic rivalry from a strategic point of view, between the West, mainly the US, and China. Here comes the LoS to provide the fundamental framework for everything that takes place in the Arctic Circle.

3.9.9. "High North, Low Tension", or "High North, High Tension"?

Even though the adage "High North, Low Tension" has been applied to the Arctic for decades, the evolving political and energy crisis that has been triggered even more by the recent Russian invasion of Ukraine has rendered the region more relevant in geopolitics, sparking even concerns about active militarization and internalization of the Arctic in case of a spillover of the systemic rivalry between Russia and the West into the said zone. Indeed, the notion that the circumpolar North is and should preserve the current stable status quo of peace and security is being challenged by the ongoing tensions between the West and Russia. [237]

Undoubtedly, the changing security policy environment in recent years has prompted Arctic stakeholders, mainly Russia and the West (i.e., NATO), to increasingly showcase their military capabilities in the region as previously frozen border areas are now exposed, raising concerns for an Arctic security dilemma.

Russia, having the longest Arctic coastline, is deeply preoccupied with the new implications on its national security, leading it to defend its Arctic borders which are now considered more vulnerable due to the thawing permafrost. To this end, in its Arctic Strategy through 2035, Russia has included among its challenges, the "military modernization, and build-up by foreign states in the Arctic and an increase of the potential for conflict in the region" [238], posing a challenge to the

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[237] From *The Future of EU-Russia Collaboration in the Arctic*, by A. Raspotnik & A. Stępień, 2022, Baltic Rim Economies Review (https://sites.utu.fi/bre/the-future-of-eu-russia-collaboration-in-the-arctic/).

[238] From *Russia and the Future of the Arctic* (Working paper No. 336, p. 9), by N. Kapoor, 2021, Observer Research Foundation (https://www.orfonline.org/wp-content/uploads/2021/10/ORF_OccasionalPaper_336_Russia-Arctic.pdf).

security of the US and other Allied countries. Among others, Russia is pursuing the rebuilding of its military presence in the Arctic, the construction of new icebreakers in a bid to increase cargo transportation in the Arctic waters, the building of dual-use infrastructure, and the launching of new missile programs. Several of the Soviet-era bases and airfields have also been reactivated coupled with the construction of new ones, in an effort to bolster its national defense.[239] Moreover, its oil and gas terminals are also prime targets requiring defense. [240]

NATO, in its turn, has responded to Russia's heightened activity in the challenging region by increasing its presence in the High North, paying particular attention to improving operational capabilities, and monitoring developments in the Russian Arctic. For example, in 2020, the US Navy and UK Royal Navy surface vessels conducted operations in the area for the first time since the '80s. [241] However, it is deemed that the securitization of the region against Russian militarism in the Arctic can further aggravate the situation by creating a security dilemma. [242]

While security considerations have stepped up in the new Arctic Strategies of the major stakeholders, it is pertinent to identify that the threat perceptions remain below historic Cold War levels accounting for limited shares of global military activity. In addition, it is an acknowledged fact that the dominant paradigm in Arctic diplomacy is cooperation and dialogue. [243] To maintain the said paradigm it is critical for the Arctic states to reduce the geopolitical tensions concerned and to promote security and stability in the region, by ensuring predictability and transparency about their activity, to prevent the Arctic Ocean from transforming into a zone where the renewed clashes between Russia and NATO are being dragged into. The latter can be intensified by the fact that the melting permafrost provides the seedbed for extended military operations in maritime areas that previously were ice-covered.

However, it should be taken into account that for the Russian power projection and the support of its large economic stakes in the region, foreign investments and technology are needed. Further, even now that interactions between Russia and the other (western) Arctic states are severed and the vast majority of the work of the Council and the cooperation programs have been suspended,

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[239] From *Russia's Arctic Strategy through 2035: Grand Plans and Pragmatic Constraints* (Comment No. 57, p. 2), by J. Kluge & M. Paul, 2020, German Institute for International and Security Affairs (https://www.swp-berlin.org/publications/products/comments/2020C57_RussiaArcticStrategy.pdf).

[240] *Ibid.*

[241] See supra notes 221, 223.

[242] From *Changing contours of Arctic politics and the prospects for cooperation between Russia and China*, by *M.* Rehman, 2022, The Arctic Institute (https://www.thearcticinstitute.org/changing-contours-arctic-politics-prospects-cooperation-russia-china/).

[243] Worth (2009).

the cooperation in several Arctic-relevant affairs, such as the long-range pollution and climate change continues, although in a limited spectrum. [244] Moreover, the Arctic states have committed, under the Council and other agreements, to cooperate in infrastructure projects in a bid to preserve their marine ecosystems and prevent the devastating effects of climate change on their local communities. To this end, Arctic stakeholders maneuver in the region to form a finely balanced policy that contains both confrontational and cooperation-seeking elements.

Finally, in defense of international cooperation, the Council in its Strategic Plan from 2021-2030, envisions the Arctic as "a region of peace, stability, and constructive cooperation." [245] , where all the Arctic states maintain a cooperative stance that will help them preserve their respective economic and political interests. [246] So, to avoid the transformation of the Arctic Ocean into the new South China Sea, fraught with militarization and competing for territorial claims, as the former US Secretary of State, Mike Pompeo, stated in 2019, [247] the Arctic coastal states shall move towards cross-sectoral cooperation, taking also a cue from the Antarctic Treaty System (ATS), which ensued from a treaty (*the Antarctic Treaty*) signed in 1959 by 12 states and today counts for 55 contracting parties.

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[244] Raspotnik & Stępień (2022), see supra note 237.

[245] From *Arctic Council Strategic Plan 2021 to 2030* (p. 6), by Arctic Council, 2021, Arctic Council Secretariat (https://oaarchive.arctic-council.org/bitstream/handle/11374/2601/MMIS12_2021_REYKJAVIK_Strategic-Plan_2021-2030.pdf?sequence=1&isAllowed=y).

[246] From *Russia and the Future of the Arctic* (Working paper No. 336, p. 21), by N. Kapoor, 2021, Observer Research Foundation (https://www.orfonline.org/wp-content/uploads/2021/10/ORF_OccasionalPaper_336_Russia-Arctic.pdf).

[247] From *U. S. warns Beijing's Arctic activity risks creating 'new South China Sea', 2019*, The Guardian, (https://www.theguardian.com/world/2019/may/06/pompeo-arctic-activity-new-south-china-sea).

Chapter 4: Arctic Maritime Claims & Boundary Agreements

4.1. The Arctic region in compliance with the LOSC

Moving to the very heart of our topic, it is expedient to note that the delimitation in the Arctic region is not excluded from the generally accepted norms and principles of maritime boundary delimitation, notwithstanding the geographical particularities (e.g., converging coasts) mentioned in the previous Chapter and the sparsely populated areas of the North. The environmental transformation of the said region, with the increasing ice meltdown, results, among others, in the enlargement of the maritime spaces and the subsequent territorial-sovereign claims. In turn, this situation creates overlapping entitlements that may lead to confrontational circumstances, which, coupled with the growing interest in the area, affect the region's geopolitics.

Broadly, the Arctic coastal states, having abided by the international legal framework (LOSC) governing jurisdictional claims and maritime boundary delimitation and having expressed their commitment to its core principles and norms, are regarded as paragons in settling disputes before these could escalate into conflict, whereas about 40% of the maritime boundaries worldwide remain unsettled and frequently disputed. [248]

On this occasion, it is pertinent to mention that all the Arctic Five have claimed, although with some variation, maritime zones adjacent to its coasts (i.e., a 12 nm territorial sea, a 24 nm contiguous zone, a 200 nm EEZ and a CS). Moreover, albeit they have made considerable progress in settling overlapping maritime claims and cementing their sovereign rights and interests, great uncertainty continues to exist regarding their extended CS rights, for which all of the regional coastal states, except the US, have filed submissions to the CLCS. This uncertainty stems from the complexity and ambiguity that describes the delineation of the outer limits of the CS as outlined in Article 76, which involves several geophysical criteria and distance measurements.

On the Arctic Ocean, four bilateral maritime boundary agreements are worth mentioning, together with two Arctic disputes still unresolved:

1) Norway-Soviet Union (1957) (The Barents Sea Treaty),
2) Canada-Denmark/Greenland) (Lincoln Sea) (1973),
3) The Soviet Union/Russian Federation-USA (1990),
4) Denmark/Greenland-Norway/Svalbard (2006), and
5) The USA-Canada (Beaufort Sea) (still under dispute)

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[248] From *The Arctic Ocean: Boundaries and disputes*, by A. Østhagen & C. H. Schofield, 2021, Arctic Portal, p. 1 (https://arcticyearbook.com/arctic-yearbook/2021/2021-scholarly-papers/374-the-arctic-ocean-boundaries-and-disputes).

Besides these five bilateral agreements, there are also other Arctic-related boundary settlements, such as those between Iceland and Norway (1981 & 2008) and Denmark and Norway (1993) [249] concerning the Jan Mayen Island, and the 2006 Agreement between Denmark (Faroe Islands), Iceland, and Norway on the overlapping claims for the extended CS in the "Banana Hole" of the Northeast Atlantic through "Agreed Minutes" [250], which has been updated by three maritime delimitation agreements concluded in 2019 [i.e., between Norway and Iceland, Norway and Denmark (the Faroe Islands) and Iceland and Denmark (the Faroe Islands) respectively] (see adjacent figure). No detailed analysis is followed for these disputes as they are not relevant to our discussion, bordering only on the Arctic Circle but not extending into the Arctic Ocean. [251]

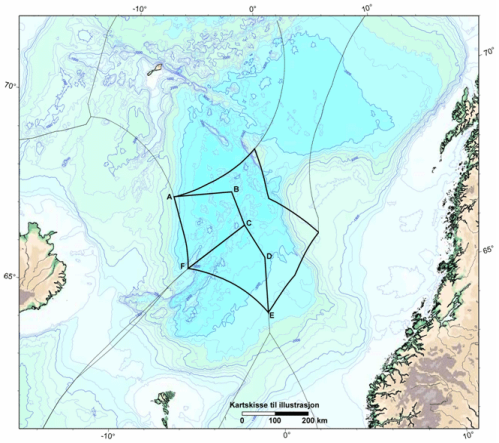

Fig. 4.1.: Delimitation of the Continental Shelf beyond 200 nm between the Faroe Islands, Iceland, and Norway in the Southern Part of the Banana Hole (2019)
(Source: *Government.no*)

Further below, each of the five bilateral maritime boundary agreements in the Arctic Ocean is examined in chronological order, together with the factors that have enabled their conclusion.

[249] See the 1993 Jan Mayen Case.

[250] From A Divided Arctic: Maritime Boundary Agreements and Disputes in the Arctic Ocean (p.180), by C. Schofield and A. Østhagen, in J. Weber (Ed.), *Handbook on Geopolitics and Security in the Arctic: The High North Between Cooperation and Confrontation* (Ser. Frontiers in International Relations), 2020, Springer (https://doi.org/j27v).

[251] Østhagen & Schofield (2021), note 5.

4.2. The Five Bilateral Maritime Boundary Agreements on the Arctic Ocean

4.2.1. Maritime Boundary Agreement between the Kingdom of Norway & the USSR (1957)

The first Arctic maritime boundary, which dates back to the Cold War era, was demarcated between Norway and the former Soviet Union by a series of agreements extending over four decades, while the overlapping claims of their ECSs in the Arctic Ocean have yet to be delimited.[252]

It is of particular interest to note that in the Arctic region, all stakeholders have potential or existing overlapping claims with the Russian Federation. While the US settled the boundary dispute with the Russian Federation as early as 1990, other coastal states, such as Norway which has the most extensive scope in the area, have overlapping EEZs and CSs claims with the Russian Federation.

Before analyzing the final boundary delimitation between Norway and the former Soviet Union and its possible implications for future Arctic maritime delimitations, it is pertinent to provide a historical background of this long-running Barents Sea dispute, along with some general characteristics of the area.

Map 4.2.1.1.: The Barents Sea; It is a marginal swallow-water sea, half Russian, half Norwegian, of the Arctic Ocean, covering about 1.4 million km^2. It is a highly productive area (i.e., intensity in fisheries and hydrocarbon activity). The north-flowing warm currents of the North Atlantic Drift render the southern parts of the Sea to remain ice-free all-year-round.

(Source: WorldAtlas)

Interestingly, the Barents Sea is a marginal sea of the Arctic Ocean, located north of Norway and the Russian Federation. The region is considered a relatively developed region, with a sizeable population. Because of the effect of the Gulf Stream [253], the southern part of the Barents Sea has remained ice-free all-year-round, rendering the development of economic activities in the region less-challenging and more cost-effective. It thus contains large quantities of living and non-living natural resources, attracting, by this means, the economic interest of both parties involved in the dispute. Specifically, according to the USGS' 2008 assessment, the Barents Sea shelf holds more than 76 billion barrels of oil equivalent (BBOe) of undiscovered, conventional, technically recoverable petroleum resources, among which 11 billion barrels of crude oil (BBO), 10,7 TCM

[252] From *Norway–Russia maritime boundary*, (n.d.), Sovereign Limits (https://sovereignlimits.com/boundaries/norway-russia-maritime).

[253] The Gulf Stream is a strong ocean current that brings warm water from the Gulf of Mexico into the Atlantic Ocean. It extends all the way up the eastern coast of the United States and Northern Europe.

of n.g., and two billion barrels of natural gas liquids (BBNGL). [254] In addition to the economic importance of the Barents Sea, it constituted a vital strategic area for the security policies of both parties during the Cold War period, being at the same time a great part of the Northern Flank of NATO and the principal way out to the Atlantic for the Soviet Northern Fleet. [255]

Moreover, since the '70s, Norway and the Russian Federation have developed a bilateral fisheries co-management system with the aim to secure marine management in the High North and setting the fishing quotas for the cod stock and the other species in the Barents Sea, which was formally expanded in the '90s and is still being touted as the foremost model of fisheries co-management not only in the said region but also in the global context. It is pertinent to note that a large body of water in the Barents Sea, i.e., the Loophole area, is considered to be high seas, a fact that has led to disaccord regarding the legal status of the Svalbard Archipelago, and to legal disputes with respect the outer limits of the ECSs of the Arctic coastal states, further analyzed below.

The Historical Background of the Barents Sea Delimitation

(I) The 1957 Varangerfjiord Agreement

The first of the three separate agreements, which was signed in 1957 and became known as the *1957 Varangerfjord Agreement,* defined the territorial seas of the two parties in the Varangerfjord area as well as a small part of their CSs [256], following the formal claims in 1963 and 1968 to the seabed and subsoil adjacent to their coasts made by Norway and the Soviet Union respectively, issuing the relevant Decrees. Initially, before the emergence of the EEZ concept in the '70s, the negotiations of the said maritime dispute concerned only the delimitation of the parties' CSs. This Agreement was later revised by the subsequent agreements of 2007 and 2010 reached between the two parties.

The need for maritime delimitation between Norway and the former Soviet Union arose as large areas of the Barents seabed were perceived as CS according to the LOSC. Formal negotiations concerning the delimitation of maritime boundaries between the parties commenced in the mid-70s. However, the negotiations became more intensive in 1977, when both states cemented

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[254] From *Assessment of Undiscovered Petroleum Resources of the Barents Sea Shelf,* by D. L. Gautier & T. R. Klett, 2009, U.S. Geological Survey (https://pubs.usgs.gov/fs/2009/3037/pdf/FS09-3037.pdf).

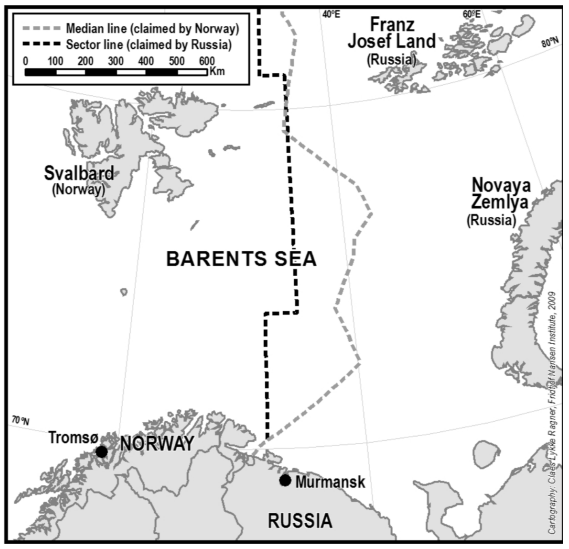
[255] From *The Grey Zone Agreement of 1978: Fishery Concerns, Security Challenges and Territorial Interests* (FNI Report 13/2009, p.1), by K. Stabrun, 2009, Fridtjof Nansen Institute,(https://www.files.ethz.ch/isn/112916/FNI-R1309.pdf).

[256] See Agreement concerning the Sea Frontier between Norway and the USSR in the Varanger Fjord (1957), UNTS Vol. 312, No. 4523.

their respective claims to 200 nm EEZ and 200 nm EFZ in the said area, a fact that further complicated the delimitation process.[257] Thenceforth, the negotiations involved not only the CS but also the delimitation of the EEZ and the EFZ concepts, which emerged in the post-World Word II era as has already been mentioned. Since the USSR proclaimed a 200 nm EFZ in 1984, the ultimate purpose of the negotiations became the delimitation of an SMB on overlapping CS and the EEZ areas within 200 nm from the shorelines.

It should be mentioned that the overlapping claims involved a disputed area spanning roughly 175,000 km^2, lying between the Norwegian asserted median line, and the sector line advocated by the Russian Federation. [258] However, the overlapping area that is located in the Barents Sea and especially in the Loop Hole, covers around 155,00 km^2, while the rest 20,000 km^2 are situated just north of it in the Arctic Ocean. [259]

At the core of the issue were the diverging jurisdictional principles supported by the parties regarding the drawing of the boundary line of the CS. More concretely, Norway was of the view that the maritime boundary should be equidistance-based, i.e., an equidistance line that runs between the Norwegian Svalbard Archipelago, and the Russian Novaya Zemlya and Franz Josef Islands, splitting the disputed region at an equal size. Norway's consistent preference for a median line is based upon Article 6 CCS and further endorsed by Article 74 UNCLOS, which promotes the achievement of an equitable solution between the neighboring states. On the other hand, the former Soviet Union (and its successor, the Russian Federation) asserted that the delimitation line should follow the sector principle, referring also to the identification of special circumstances as a justification for deviating from the median line. These circumstances are the military-strategic importance of the area and the 1926 Soviet Sector Decree that laid claim to the sector principle for the first time. In addition to geographical circumstances, such as the configuration of the coast and disproportionality between the comparative lengths of the relevant coastlines, Russia bolstered its position by referring to several non-geographical circumstances, including the larger Russian



Map 4.2.1.2.: The diverging positions of the parties regarding the drawing of the boundary line in the Barents Sea

(Source: The Fridtjof Nansen Institute)

[257] Filipek & Hruzdou (2011), p. 220.

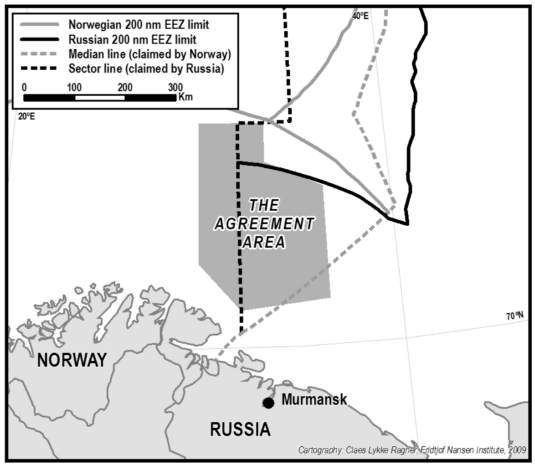
[258] Henriksen & Ulfstein (2011), p.1.

[259] Filipek & Hruzdou (2011), p. 220.

population, economic and security interests, and special environmental risks. [260] The application of the sector line solution would grant Russia the entire Loop Hole, drawing a straight line from the westernmost point of Russian territory to the North Pole, as well as some of the Norwegian EEZ that did not overlap with the Russian one at the time. [261] Despite the different approaches advocated by the parties, they both ratified the UNCLOS in 1996 (Norway) and 1997 (Russian Federation) and respected the LoS provisions (Article 6 CCS superseded later by Articles 74 & 83 UNCLOS) as the governing law of the negotiation process.

(II) The Grey Zone Agreement

Since the 1957 Agreement failed to settle the boundaries relating to the overlapping EEZs and CSs in the Barents Sea and bearing in mind that the said region is one of the world's best fisheries hot spots and the economic importance of the living resources of the region for both states, the parties reached a provisional fishing arrangement in 1978, known as the *Grey Zone Agreement,* to regulate the fishing activities within the 200 nm-range disputed area, and enhance their bilateral fishery cooperation. Further, the protection of the fishery interests was of particular importance for the top-tier fishermen, taking into account their historical exploitation of the marine living resources and the respective Norwegian export industry.



Map 4.2.1.3.: The Grey Zone Agreement Area (1978)

(Source: The Fridtjof Nansen Institute)

Moreover, the ecosystem of the Barents Sea had been rendered fragile because of the over-exploitation of the fish stocks during the '70s, and thus the need for fruitful negotiations was imperative to establish a sound resource management regime. Within the Grey Zone, which comprises around 41,500 km^2 of disputed waters [262], the parties' jurisdiction involved not only the national fishing vessels but also, albeit in a somewhat

[260] Henriksen & Ulfstein (2011), p. 4.

[261] From "The Scramble for the Arctic: The United Nations Convention on the Law of the Sea (UNCLOS) and Extending National Seabed Claims," by J. D. Carlson, C. Hubach, J. Long, K. Minteer & S. Young, 2009, *SSRN Electronic Journal*, p.36 (https://doi.org/fx956s).

[262] From *Marine Management in Disputed Areas: the Case of the Barents Sea* (Ocean Management and Policy Series, p 67), by R. Churchill & G. Ulfstein, 1992, Routledge, (https://doi.org/jth8).

restricted way, foreign fishing vessels as well. [263] It is deduced, however, that the agreement's outcome was mostly determined from a political standpoint. Therefore, the established regulated area was leaned in favor of the Soviet side, implying that the delimitation line agreed upon was not geographically balanced between the two jurisdictional principles, and it might have a prejudicial effect on a future delimitation line. Accordingly, the Nordli government criticized the agreement as it was considered a territorial concession to the Soviet Union, which sought to solidify its position by abusing the power asymmetries to become the *de facto* leader in the entire region. [264] Notwithstanding the political connotation of the final decision, it proved successful in resource management.

(III) The 2007 Agreement

The progress in the delimitation talks was slow in the following years, with a short period of a halt due to the dissolution of the Soviet Union. In 2007, a new agreement was reached between the two parties, replacing the *1957 Varangerfjord Agreement,* with the view to extend the previously drawn maritime boundary in the southern part of the Barents Sea, to a point where the two opposing principles cross. The said agreement determined an SMB that includes the EEZ and the CS. It also determined a maritime boundary for the territorial and contiguous zone, since Norway expanded its territorial sea from four to 12 nm and established a 24 nm contiguous zone in 2004. [265] However, this boundary line was considered still incomplete.

(IV) The Barents Sea Treaty (2010)

After four decades of deadlock, the breakthrough between the parties was achieved in 2010, through the signing of a landmark delimitation treaty (known as the *Treaty Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean*) that brought the long negotiation process to an end. The treaty came into force in 2011, following its ratification by both sides. According to the *2010 Joint Statement* released after the agreement was reached, the

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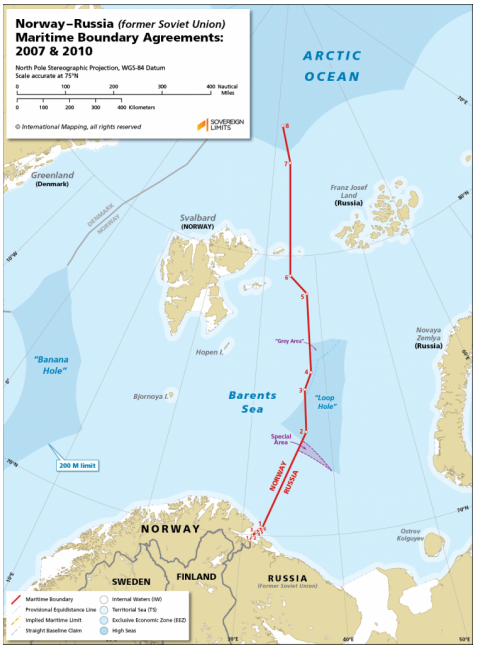
[263] From *International Law of the Sea: Current Trends and Controversial Issues* (p. 388), by A. D. Vecchio (Ed.), 2014, Eleven International Publishing (https://www.academia.edu/6099894/The_2010_Treaty_between_Norway_and_the_Russian_Federation_on_Maritime_Delimitations_Considerations_about_the_Application_of_the_Law_of_the_Sea).

[264] Stabrun (2009), pp. 24-25.

[265] From *The Law of Maritime Delimitation and the Russian-Norwegian Maritime Boundary Dispute* (FNI Report 1/2010, p. 69), by P. J. Aasen, 2010, Fridtjof Nansen Institute (https://www.fni.no/getfile.php/131666-1469868928/Filer/Publikasjoner/FNI-R0110.pdf)

boundary line is drawn based on "international law to achieve an equitable solution". [266] Regarding the identification of the relevant factors in the said dispute, the only one mentioned is the effect of disproportionality of the relevant coastal lengths in the disputed area during the third stage of the three-step method of the corrective-equity approach. Noticeably, neither the equidistance line nor the sector line is mentioned in the statement. It should be mentioned that the effect of the non-geographical circumstances advocated in the present case, such as fishing resources, ice conditions, population size, security interests, shipping, and the existence of the *1920 Svalbard Treaty* (see below section 4.2.4.), have not given significant weight so as to require a shift of the provisional equidistance line. [267] As far as the special status of the Svalbard Archipelago is concerned, albeit it is cited neither in the *2010 Agreement* nor the Joint Statement, Russia, as opposed to Norway, is of the view that it can generate separate maritime zones without these being prevented by the *1920 Svalbard Treaty*.[268] However, the special status of the Archipelago limited the extent of Svalbard's maritime zones, leading to its non-attribution of full effect in the present delimitation.



Map 4.2.1.4.: Maritime Boundary Agreement between Norway & Russian Federation (2007& 2010)

(Source: Sovereign Limits)

Under the delimitation treaty, the parties defined their maritime borders in the area by establishing an all-purpose single maritime boundary for both their EEZs and CSs in areas within 200 nm of their coasts and a delimitation line between the Norwegian and Russian CS where it extends beyond 200 nm. The boundary line divided the overall disputed area into two parts of almost equal size, raising the question of whether the agreed boundary would be best described as a modified equidistance line or a modified sector line. [269] In fact, the agreed delimitation line, which starts at the terminal point of the 2007 boundary line and spans a total of 945 nm, is deemed to be a compromise solution between Norway's equidistance line approach and Russia's

[266] From *Joint Statement on Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean*, 2010, para. 4 (https://www.regjeringen.no/globalassets/upload/ud/vedlegg/folkerett/100427-fellesuutalelseengelsk.pdf?id=2170328).

[267] Aasen (2010), p. 72.

[268] Henriksen & Ulfstein (2011), p. 9.

[269] Henriksen & Ulfstein (2011), p. 7.

sector theory, with both states making concessions and deviating from their initial positions. [270] It is pertinent to note that Norway had not abandoned its traditional equidistance line position, but it had adapted to the modern principles of international law, using the equidistance line as a starting point that had to be adjusted based on the identification of the relevant circumstances.

The agreement includes provisions on rules and procedures for continued cooperation on fishing activities in the Barents Sea (see Article 4 and Annex I of the Treaty), the economic importance of which is mentioned in the *Grey Zone Agreement* above, and for the co-management of mineral resources lying in the CS of either side, i.e., for hydrocarbon transboundary deposits (oil or gas) (see Article 5 & Annex II of the Treaty), through the conclusion of a "*Unitization Agreement*" for the exploitation of the hydrocarbon deposits as a unit [271]. More specifically, the said agreement stipulates that in case a hydrocarbon deposit extends across the CS of each of the parties, either may request that an agreement on its exploitation and distribution be reached, to jointly manage the deposit under question. [272] Up until then, the exploitation of hydrocarbon reserves had not been given great importance due to the limited available technology and the prohibited cost of resource extraction, but global warming and the subsequent ice retreat in the region rendered the hydrocarbon drilling necessary for the surrounding states to access the oil and gas fields.

Article 3 of the *2010 Agreement* provides for an innovative feature, i.e., the establishment of a "Special Area" on the east side of the boundary line, where Russia is granted sovereign rights and jurisdiction within 200 nm of the Norwegian coast but beyond 200 nm of Russian baselines.[273] This area would otherwise be under Norwegian jurisdiction but it has been transferred to Russia to whose side the said area is located. Importantly, the exercise of the Russian sovereign rights and jurisdiction derives from the agreement of the parties and does not constitute any formal extension of its EEZ, while Russia is also bound to take the necessary measures to ensure that the exercise of such rights or jurisdiction in the "Special Area" is incorporated into its domestic legislation. [274] This special provision of the agreement is analogous to the "Special Areas" identified in the *Maritime Boundary Agreement between the US & the USSR* reached in 1990 (see section 4.2.3.).

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[270] Filipek & Hruzdou (2011), p. 225.

[271] From *Treaty Between the Kingdom of Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean*, 2010, Article 5, paras. 2-3 (https://www.regjeringen.no/globalassets/upload/ud/vedlegg/folkerett/avtale_engelsk.pdf).

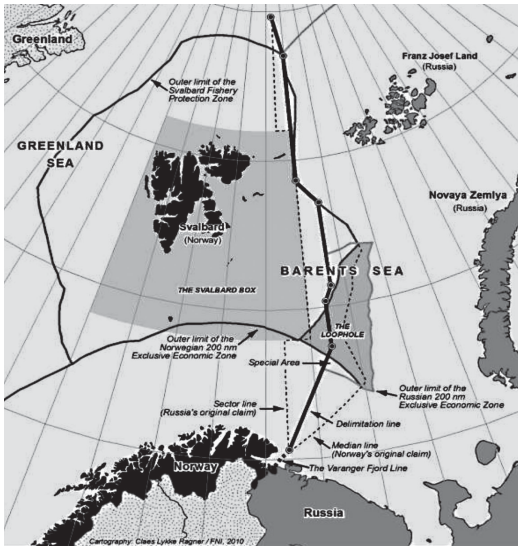
[272] *Ibid.*

[273] *Ibid.*, Article 3, para.1.

[274] *Ibid.,* Article 3, para.2.

The scope of the *2010 Agreement*, as stipulated in its provisions, is to manage the shared resources lying under the Barents Sea efficiently and responsibly and establish a dispute-resolution mechanism for the transboundary resources, either hydrocarbons or fisheries, with the view to foster offshore exploration and exploitation. The only issue that the 2010 Agreement did not resolve concerned the status of the Svalbard Archipelago with respect to the delimitation since Russia does not recognize Norway's "full and absolute sovereignty" in the maritime areas around Svalbard. The agreement has been touted as a model of cooperation in the wider Arctic Ocean, which is characterized by the peaceful resolution of disputes under the norms and principles of international law. It has also been characterized by both governments that during the delimitation talks adopted an all-inclusive approach, as "a key step forward" in their bilateral relations, marking "a new era of cooperation".

Having referred to the evolution of the delimitation agreement between Norway and Russia, its implications for existing or future Arctic maritime delimitations would be of relevant importance, since the effect of an agreement being part of the state practice can extend to third states as well. To this end, the remaining unresolved delimitation disputes in the Arctic, such as *the Beaufort Sea Boundary Dispute between Canada and the USA*, as well as new Arctic overlapping claims that may arise with the delineation of the outer limits of the Arctic coastal states' CSs, may take a cue from the said agreement given that the dispute has been settled in an orderly way under the principles of international law promoting the sound governance of the Arctic region with the view to avoid a "Pole Race".



Map 4.2.1.5.: All the possible delimitations in the Barents Sea

(Source: The Fridtjof Nansen Institute)

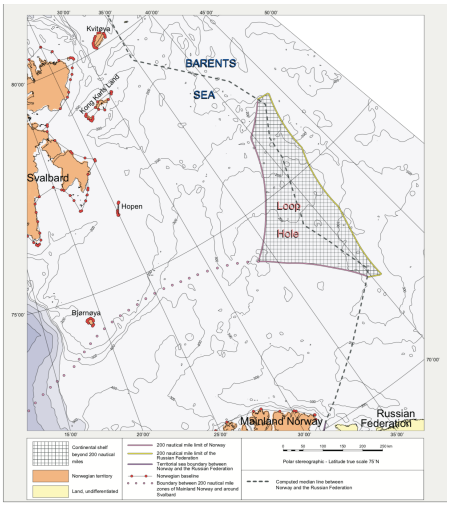
(V) The Delimitation of the Barents Sea Shelf beyond 200 nm

It is pertinent to comment on the extension of the CS boundary line beyond 200 nm from the coasts of both states to the north. In this case, the parties have invoked the provisions of Article 76 UNCLOS to establish the outer limits of the CS beyond 200 nm, which as will be mentioned in the next Chapter are subject to review by the CLCS. Importantly, both Norway and Russia ratified the 1982 UNCLOS in 1996 and 1997 respectively.

In 2006, Norway forwarded its submission to the CLCS for the approximately 155.000 km^2 rich Loop Hole area, which lies in the center of the Barents Sea and outside of both parties' EEZs, and thus is subject to the establishment of the outer limits of the CS and the subsequent

delimitation between the two parties. Moreover, Norway referred to the submission made by the Russian Federation in 2001 concerning this area [275] , where parts of Norway's EEZ were claimed as Russian CS. The latter submission, like the one filed by Norway, contained scientific and technical data regarding the outer limits of its ECS that involved bilateral boundary negotiations with the Arctic neighboring states, among them Norway.

The Loop Hole area usurps part of the natural prolongation of the land territories of both parties under the sea, and hence the CLCS, on its recommendations issued in 2009, recognizes Norway's legal entitlement to establish its CS beyond 200 nm in the said area, while it advocates Norway to conclude a delimitation agreement with the Russian Federation for the sake of the delineation of their CSs outer limits in the area to settle existing overlapping claims. [276]



Map 4.2.1.6.: The CS beyond 200 nm in the Loop Hole in the Barents Sea

(Source: Division for Ocean Affairs and the Law of the Sea Office of Legal Affairs)

4.2.2. Maritime Boundary Agreement between Canada & the Kingdom of Denmark (Greenland)(1973)

In 1973, Canada and the Kingdom of Denmark (on behalf of Greenland) delimitated a 1.500-mile-long CS boundary between the eastern Canadian Arctic Islands (mainly the Ellesmere Island) and Denmark's Greenland through a bilateral agreement. This boundary agreement, which commenced in the North Atlantic Ocean and reached the Arctic Ocean in the Lincoln Sea, was considered groundbreaking for two main reasons.

First, the boundary agreement left a short gap in the 22-mile-wide Nares Strait waterway, where the tiny (approx. 1,2 km^2) uninhabited Hans Island (Tartupaluk), claimed by both states, is located. In essence, this feature falls within the category of rocks, with Canada justifying its claim based on the historical presence and continuous exercise of authority, while Denmark argues that the island is part of its territory based on its proximity to Greenland. As Prof. M. Buyers stated before the Special Senate Committee on the Arctic in 2019, this feature between

[275] From *Continental Shelf Submission of Norway in respect of areas in the Arctic Ocean, the Barents Sea, and the Norwegian Sea: Executive Summary* (p.12), by Division for Ocean Affairs and the Law of the Sea Office of Legal Affairs, 2009, United Nations (https://www.un.org/depts/los/clcs_new/submissions_files/nor06/nor_exec_sum.pdf).

[276] From *Summary of the Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Norway in respect of the Areas in the Arctic Ocean, the Barents Sea and the Norwegian Sea on 27 November 2006* (p. 5), by Commission on the Limits of the Continental Shelf, 2009 (https://www.un.org/depts/los/clcs_new/submissions_files/nor06/nor_rec_summ.pdf).

Canada and Greenland is the sole disputed land territory in the Arctic region. [277] Discounting this islet in the delimitation led to the circumvention of the territorial dispute. [278] Moreover, the Nares Strait is deemed rich in oil and gas reserves, but offshore drilling seems to be unlikely in the short term due to the deep-water area and the existence of icebergs.

The second reason lies in the fact that notwithstanding the boundary was equidistance-based between the opposite coasts, the location of the specific base points in the Arctic was indefinite, and thereby, a provision for the adjustment of the said line based on new scientific evidence was incorporated into the agreement, which applied in 2004. However, this delimitation agreement failed to address the issue and many nationalistic actions, notably including the flag-planting on the islet and the exchange of bottles of Canadian whiskey and Danish schnapps, in an attempt to cement their claims to the islet, were followed by both states.

Map 4.2.2.1. : Maritime Delimitation between Canada & the Kingdom of Denmark (Greenland) (1973)

(Source: Sovereign Limits)

Accordingly, the developments in the Arctic led to the announcement of an interim agreement on the maritime boundary in the Lincoln Sea in 2012 but without a conclusion, as it left open the issue of a joint management regime for any straddling hydrocarbon deposits, which was settled in 2018 with the establishment of a *"Joint Task Force on Boundary Issues"*. [279]

Finally, the five-decade-old boundary dispute (known as the *Arctic Whiskey War* and the most friendly of all territorial disputes) over the sovereignty of Hans Island was resolved by finalizing a new agreement on June 14, 2022, which created the first land boundary between Canada and Denmark/Greenland, dividing the island relatively equitably between the two parts based again on an equidistance-based approach (i.e., 60% of the area attributed to Denmark and the remainder to Canada). [280] In addition to the establishment of the

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[277] From Byers, M. (2019, March 18). Consider the significant and rapid changes to the Arctic, and impacts on original inhabitants.(Issue No. 22) In D. G. Patterson Senator (Chair), Proceedings of the Special Senate Committee on the Arctic, Ottawa. https://sencanada.ca/en/Content/Sen/Committee/421/ARCT/22ev-54594-e

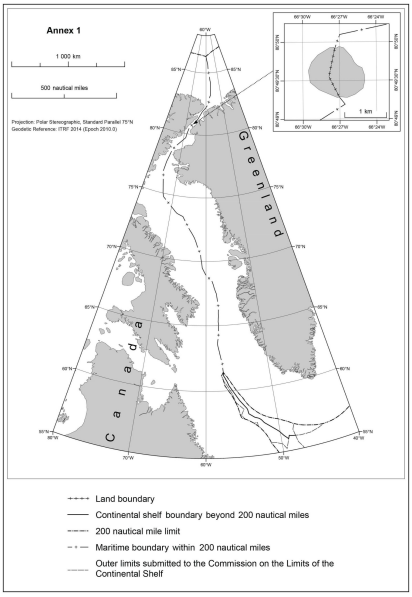
[278] Schofield & Østhagen (2020), p. 177.

[279] *Ibid.*, p. 182.

[280] From *The Hans Island "Peace" Agreement between Canada, Denmark, and Greenland [web blog]*, by E. Hofverberg, 2022, Library of Congress (https://blogs.loc.gov/law/2022/06/the-hans-island-peace-agreement-between-canada-denmark-and-greenland/).

land border, the 2022 Agreement settled the remaining maritime border in the Lincoln and Labrador Seas. [281]

The said agreement, modernizing the 1973 boundary by making the final technical adjustments to the delimitation line, resulted in the establishment of the longest CS boundary negotiated to date at around 3.900 km, marking a historic milestone in the relationship between the two opposite states and NATO allies. In fact, this agreement is considered a symbolic move endorsing the peaceful settlement of disputes against Russian aggression.



Map 4.2.2.2. : New Boundary Agreement between Canada & Denmark (Greenland) (June 14, 2022)

(Source: Global Affairs Canada)

Further, the historical significance of the limestone island for the indigenous people of both nations (i.e., the Inughuit of Avanersuaq in Greenland and the Inuit of Nunavut in Canada) should be mentioned, as the said agreement has direct legal implications for their traditional (mainly fishing and hunting) rights. To this end, the two governments, during the negotiations for the conclusion of this new agreement, consulted the indigenous populations under their domestic law, contributing to the preservation of the traditional, symbolic, and historical significance of Hans Island to local communities together with the safeguarding of their unhindered access and movement on the island, albeit the established free-movement regime does not extend to the marine areas surrounding the island. [282] Nonetheless, this move may have a more symbolic value demonstrating the integrity of the Inuit traditional territories over beyond-the-state borders.

4.2.3. Maritime Boundary Agreement between the USA & the USSR (1990)

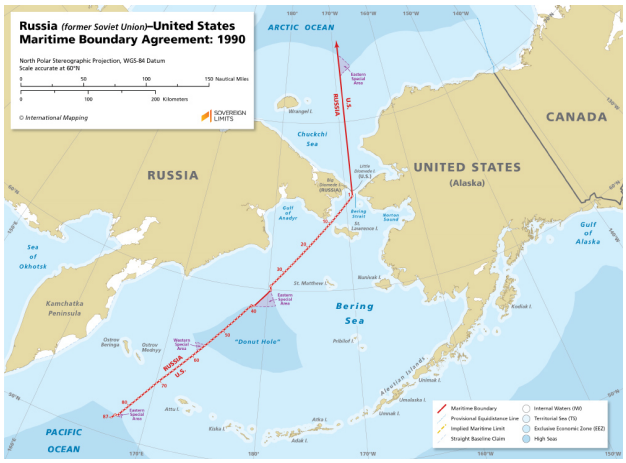
Further, a bilateral maritime boundary agreement, consisting of a straight line that originates in the North Pacific Ocean extending through the Bering Sea, the Bering Strait between Alaska and Russia, and the Chukchi Sea until it reaches the Central Arctic Ocean, was signed between the US and the USSR in 1990, a year before the collapse of the Soviet Union. Unlike the Barents region, the Bering Sea is ice-covered for at least half of the year and even though is not as

[281] From *The Legal Implications of the 2022 Canada-Denmark/Greenland Agreement on Hans Island (Tartupaluk) for the Inuit Peoples of Greenland and Nunavut*, by A. Tsiouvalas & E. L. Enyew, 2023, The Arctic Institute (https://www.thearcticinstitute.org/legal-implications-2022-canada-denmark-greenland-agreement-hans-island-tartupaluk-inuit-peoples-greenland-nunavut/).

[282] From *Canada and the Kingdom of Denmark, together with Greenland, reach historic agreement on long-standing boundary disputes*, 2022, by Government of Canada (https://www.canada.ca/en/global-affairs/news/2022/06/canada-and-the-kingdom-of-denmark-together-with-greenland-reach-historic-agreement-on-long-standing-boundary-disputes.html).

relevant as the Barents Sea in fisheries cooperation, the Bering Strait is a critical choke point and a vitally important route for migrating species. Moreover, unlike the Barents Sea which usurps part of the high seas, the Bering Strait is completely covered by maritime areas, especially the EEZs, of the US and the Russian Federation.

The Agreement reflects the view of the US that the maritime boundary between the two states is based on the line described in Article 1 of the *Alaska Treaty of Cession* (under which the US purchased Alaska from the Russian Empire), as the "western limit" (the 1867 Convention Line)[283], subject of course to some modifications presented in the Agreement. Particularly, the US asserted exclusive jurisdiction over the waters within the 1867 Convention Line, while Russia continued to claim a portion of the area, leading to a dispute between the two nations that was eventually resolved through arbitration in 1893. The tribunal ruled in favor of the US, determining that the 1867 Convention Line marked the extent of the US's territorial waters in the area.



Map 4.2.3.1.: Maritime Boundary Agreement between the U.S.S.R & the USA (1990)

(Source: Sovereign Limits)

The negotiations that lasted almost nine years resolved several issues concerning the maritime boundary between the two states. Among others, the boundary line, followed the median line, defined the limits of their maritime jurisdiction (i.e., territorial sea jurisdiction or EEZ jurisdiction) in otherwise overlapping or disputed areas and the limits of their ECS rights seaward as far as permitted under international law. This agreement also addressed several resource-management questions regarding fisheries, oil and gas exploration, and exploitation, enabling better-integrated ocean management and a collaborative framework between the opposite states.

Moreover, as a result of the Agreement, four "Special Areas" have been identified by the parties, which extend seaward of 200 nm from their coasts but are within the 200 nm reach of the opposite state. Specifically, there are three such areas (two in the Bering Sea and one in the Chukchi Sea) on the east side of the maritime boundary that lies within 200 nm of the Soviet coast but beyond 200 nm of the US coast ("eastern special areas"), and one such area (in the Bering Sea) on the west side of the boundary that lies within 200 nm of the US coast but beyond

[283] From *Agreement with the Union of Soviet Socialist Republics on the Maritime Boundary*, 1990, U. S. Government Printing Office (https://www.state.gov/wp-content/uploads/2020/02/US_Russia_1990.pdf).

200 nm of the Soviet coast ("western special area"). [284] As provided by Article 3(3) of the Agreement, the jurisdiction that each party exercises on its side of the boundary line derives from the said agreement, providing for the transfer of sovereign rights and jurisdiction in special areas from the party that could assert such claims in the absence of the maritime boundary to the party that could not, and does not constitute a unilateral extension of either party's EEZ beyond 200 nm of its baselines. [285]

It should be mentioned that the need to conclude this agreement arose from the common interest of the states to extend their fisheries zones to 200 nm and to ensure that all the maritime spaces within 200 nm would fall into the fisheries jurisdiction of one or the other party. Although this agreement is not yet in force as the Russian Federation has not formally ratified it, albeit respected its terms [286], both states benefit from the settlement of this dispute in the Bering Sea and the subsequent stability and prospect for future cooperation in the resource development in the region.

4.2.4. Maritime Boundary Agreement between the Kingdom of Denmark (Greenland) & the Kingdom of Norway (Svalbard) (2006)

Further progress in the maritime delimitation in the said region was made in 2006 with the conclusion of an agreement between the Kingdom of Denmark (on behalf of Greenland) and the Kingdom of Norway concerning the delimitation of fisheries zones and the CS between Greenland and Svalbard.

The approximately 430-mile-long boundary line, drawn under the said Agreement, constitutes an SMB between the overlapping parts of the CS among Greenland and Svalbard and the EEZ of Greenland and the EFZ around Svalbard (Article 1 of the Agreement). The said line follows a median-based recourse that leads to an equitable solution, albeit the relevant coast of Greenland is considered longer than that of Svalbard, including at the same time several small islands lying at a great distance from its coast [287]. This median line has been slightly adjusted to take into consideration the presence of the Danish Island (Tobias Island), lying about 60 km off the coast of Greenland. [288]

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[284] *Ibid.*

[285] *Ibid.*, Article 3(3).

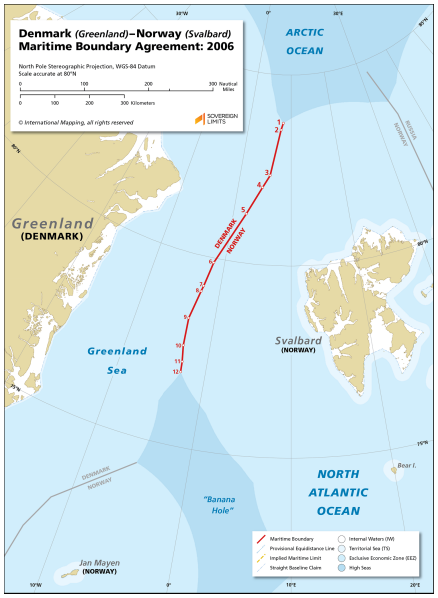
[286] Schofield & Østhagen (2020), p. 177.

[287] From "Maritime delimitation Between Denmark/Greenland and Norway," by A. Elferink, 2007, *Ocean Development and International Law, 38(4)*, pp. 376-377 (https://doi.org/cf96ct).

[288] Schofield & Østhagen (2020), p. 177.

In addition to the entitlements over maritime zones within 200 nm, the parties have also asserted claims over parts of the CS beyond 200 nm to the north and south of the settled boundary.

To this end, Norway and Denmark filed a submission on the outer limits of their CS beyond 200 nm to the CLCS in 2006 and 2009 respectively. These submissions include the western part of the Western Nansen Basin in the Arctic Ocean north of Svalbard and the northern part of the Faroe Islands. Further analysis of the said submissions to the CLCS will be provided in the next Chapter.



Map 4.2.4.1. : Maritime Boundary Agreement between Denmark (Greenland) & Norway (2006)

(Source: Sovereign Limits)

The 1920 Svalbard Treaty

It is pertinent to mention that one of the questions that are covered by the "without prejudice" provision of Article 3 of the Agreement is the interpretation of the *1920 Svalbard Treaty* (or *Spitsbergen Treaty*), to which both Norway and Denmark are parties, along with other seven contracting members. [289] The said Treaty recognizes Norway's "full and absolute sovereignty" over the Svalbard Archipelago [290], while at the same time providing for the equal rights of access and exercise of the most relevant economic activities by the nationals of other signatory nations in the areas specified in Article 1 on a non-discriminatory basis [291].

The moot point that matters here is that Norway, unlike some other parties, is of the view that the geographical application of the Treaty does not exceed the established 12-mile belt of the territorial sea. To this end, Norway initially established a four-mile territorial zone around Svalbard, intending to limit the applicable geographical area of the Treaty, albeit later the borders extended to 12 nm, expanding the applicable area of the Treaty by around 35%. [292]

The question that arises is whether the Treaty applies beyond 200 nm from the Svalbard baselines, with Norway asserting that the CS appurtenant to Svalbard is an extension of its mainland where it enjoys exclusive sovereign rights of resource exploration and exploitation.

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[289] Elferink, p. 376.

[290] Treaty of 9 February 1920 relating to Spitsbergen (Svalbard), Article 1.

[291] *Ibid.*, Articles 2,3.

[292] From "The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries," by T. Pedersen, 2006, *Ocean Development and International Law, 37(3-4)*, p. 343 (https://doi.org/d3s439).

Map 4.2.4.2.: The Svalbard Archipelago; It is located between the Norwegian mainland and the North Pole, composed of several islands. It covers an area of about 61,022 km^2, 60% of which is covered by glacial ice and permanent snowfields.

(Source:WorldAtlas)

Accordingly, as mentioned below, this argument has been supported by the 2009 Recommendations issued by the CLCS following the 2006 submission of Norway concerning the area north of Svalbard, where the CLCS recognized the existence of a Norwegian extended CS and its legal entitlement to delineate it. [293]

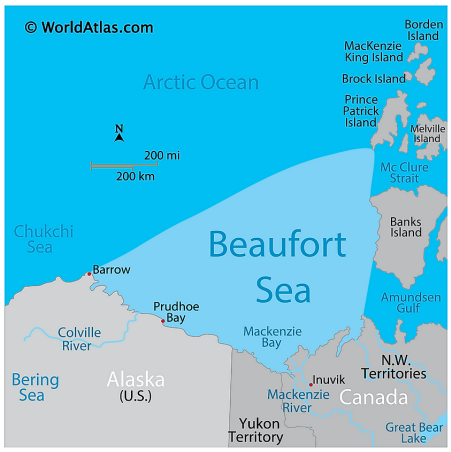
However, such a right is disputed by other parties, led by the Russian Federation, insisting that these claims breach the provisions of the *1920 Svalbard Treaty* for equal rights of all signatories, by not permitting the attribution of full effect to the said Archipelago during the delimitation process and holding the view that Svalbard has a CS separate from the mainland shelf, generating the respective rights. As has already been emphasized, though, the rights of the coastal state, in this case of Norway, to the contiguous CS are inherent and thus under Norwegian legislation.

4.2.5. The Beaufort Sea Boundary Dispute between Canada and the USA

The main Arctic maritime dispute that remains unresolved concerns the delineation between Canada (Yukon) and the US (Alaska) in the Beaufort Sea, with an overlapping area that covers more than 24.000 km^2. [294] The dispute originates in the wording of the *Treaty of Saint Petersburg* (or Anglo-Russian Convention) concluded in 1825 between Russia and Great Britain, whose rights were later inherited by the US when it purchased Alaska from Russia in 1867, and Canada when it acquired Britain's rights in 1880. The disagreement regarding the exact location of the boundary line reached a tipping point in 1976 when Canada issued oil and gas concessions, which the US protested for the first time, and both countries proclaimed EFZs out to 200 nm

[293] Schofield & Østhagen (2020), p. 178.

[294] From "Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims," by J. D. Carlson, C. Hubach, J. Long, K. Minteer & S. Young, 2013, *SAIS Review of International Affairs, 33(2),* p.38 (https://doi.org/10.1353/sais.2013.0033).



Map 4.2.5.1.: The Beaufort Sea; It covers roughly 476,000 km^2 of the Arctic Ocean, located between the Canadian territory of Yukon and the US Alaska. It remains covered with ice almost all-year-round, except during August and September, rendering exploration and navigation extremely difficult.

(Source:WorldAtlas)

using different methods of delineation in 1977 and 1976 respectively.[295] Nonetheless, those concessions did not end up in drilling operations in the overlapping area.

The two states have adopted conflicting positions, with Canada asserting that the original treaty provision defining the eastern border of Alaska with a boundary line "running along the meridian line of the 141st degree, in its prolongation as far as the Frozen Ocean" [296], established not only the land border but also the maritime boundary and that both should follow a straight northern line [297]. The US, unlike Canada, argues that the 1825 Convention delimited only the land boundary; hence, this delimitation does not apply beyond the terminus of the land boundary on the coast, considering the equidistance principle as the appropriate method for the delimitation in the area (see map 4.2.5.2.). [298] At this point, it is pertinent to note that the US, by not ratifying the LOSC, holding that it would undermine its sovereignty, risks losing claimable Arctic territory and the subsequently available resources from other coastal states already parties to the Convention.

To enhance their position, both states launched collaborative mapping, during 2008 and 2011, beyond 200 nm of the adjacent CS to confirm whether or not the CS extends at 350 nm or even further from the baselines in the said area. The outcome of the mapping was the discovery of large amounts of sediments containing hydrocarbons, which render the Beaufort Sea very promising and would legally justify the extension of the CSs beyond 200 nm.

Interestingly, the introduction of the ECSs into the equation of the boundary dispute generates a paradox concerning its resolution, i.e., that both states would benefit from adopting the other's position. Specifically, the traditional US legal position based on the equidistance principle favors

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[295] From *International Law and the Arctic* (Cambridge Studies in International and Comparative Law, p. 58), by Byers, 2013, Cambridge University Press (https://doi.org/jth7).

[296] 1825 Convention Between Great Britain and Russia, para.3.

[297] Schofield & Østhagen (2020), p. 180.

[298] *Ibid.*, & Carlson, Hubach, Long, Minteer & Young (2013), p. 38.

Canada beyond 200 nm from the shore, while the Canadian legal position to adopt the 141st meridian line both on land and out into the sea favors the US beyond 200 nm from the shore. [299]

Several renewed efforts have been made since 2010 to settle the boundary dispute between the two countries, albeit in 2016 the US's initiative to issue new exploration leases off the coast of Alaska in disputed areas was condemned by the Canadian government as encroachment of the Canadian territory, and led negotiations to stall. Notwithstanding the resource potential of the Beaufort Sea, it seems unlikely that in the short-to-medium term, these deposits will be exploitable, and that the offshore drilling companies will be eager to run the risk of investing in the said area given the high costs, the technological challenges, strict regulations and the lack of infrastructure. [300]

Map 4.2.5.2.: The Beaufort Sea Boundary Dispute
(Source: Sovereign Geographic)

Nevertheless, the predictions for all-year-round ice-free conditions by 2030 lead to the conclusion that the dispute will not extend far beyond this decade, given that the parties, often regarded as the world's closest allies and partners, will follow a cooperative approach. They should also take the cue from the resolution of the Barents Sea dispute, in 2010, between Norway and Russia, who, unlike Canada and US, were former Cold War rivals with an often-contentious relationship. The settlement of the Beaufort Sea boundary line, as one of the few remaining Arctic boundary disputes, would render the said region even more largely free from jurisdictional disputes.

4.3. Method of Delimitation of the above Bilateral Agreements

As noted above the meridian-based sector lines are considered the most widely used and most appropriate method for maritime delimitation in the Central Arctic Ocean, albeit some methods are deemed more beneficial for some coastal states and less for others. The said approach involves dividing the area to be delimited into sectors, with each of them extending from the coastline of the coastal state to the North Pole. The sector boundaries are determined by meridians, which are lines of longitude that converge at the North Pole. Nonetheless, as mentioned in section 2.4.3., the wide application of the said method by the Arctic states may

[299] Byers & Baker (2013), p. 62.

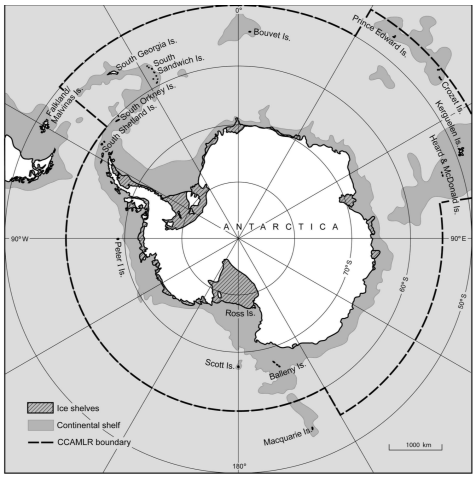
[300] From *An old problem, a new opportunity: A case for solving the Beaufort Sea Boundary dispute*, by G. Sharp, 2016, The Arctic Institute (https://www.thearcticinstitute.org/an-old-problem-a-new-opportunity-a-case-for-solving-the-beaufort-sea-boundary-dispute/).

exclude the formation of the Area within the Arctic sectors. Of course, the sector principle, like any other method, is not an obligatory method of delimitation, but its application depends on the specific circumstances and the agreement reached among the Arctic coastal states.

On this basis, the maritime delimitation line of the agreements cited above has been established as straight lines all of which are geodetic lines (i.e., defined by a given set of coordinates). The given geographical coordinates are defined in the World Geodetic System 1984 ("WGS 84"). [301]

4.4. Comparison of the Arctic with the Antarctic region

At this point, it is critical to compare the two polar regions to better understand our analysis regarding the extended territorial claims of the Arctic coastal states. Both regions are considered contested places that during the Cold War era were at the edge of becoming an extension of geopolitical tensions. Interestingly, both the High North and the Antarctic have been regarded from time to time as conflict-free zones governed by the principles of peace and stability, but recent developments reveal that the collaboration patterns enclosed within the Antarctic Treaty on the one hand and the Arctic Council on the other have disguised nationalistic instincts and a "go it alone approach" that is beginning to gain ground.



Map 4.4.1.: The Antarctic region and the Southern Ocean
(Source: Routledge Handbook of Ocean Resources and Management)

It is pertinent to highlight the different content of the claims laid on the two edges of the earth, i.e., whereas, in the Central Arctic Ocean, the coastal states straddle over maritime sovereignty, especially over their extended CSs, in the Antarctic, widely perceived as a continent, the competition still revolves over land, thus holding back the resolution of the maritime claims over CSs in the Southern Ocean, albeit the several asserted claims for a 200 nm EEZ or extended CSs. Moreover, the levels of militarization diverge across the two polar regions, i.e., the Arctic Circle is experiencing a high militarization, headed by the expansion of the Russian military bases in the region within the framework of the renewed war against Ukraine and the fear of encirclement by NATO and its allies. On the other hand, the Antarctic has been demilitarized through the conclusion of the Antarctic Treaty, which set a special regime for the region that, as stipulated in Article 1 of the Treaty, "shall be used for peaceful purposes only". More concretely,

[301] See Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary (1990), Article 2. (https://www.state.gov/wp-content/uploads/2020/02/US_Russia_1990.pdf) and Treaty Between the Kingdom of Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean (2010), Article 1, paras. 1,2 (https://www.regjeringen.no/globalassets/upload/ud/vedlegg/folkerett/avtale_engelsk.pdf).

the said Treaty suspended, but not annulled, existing territorial claims, preventing claimants from cementing new claims and prohibited, among others, the establishment of military bases.[302]

Even though the geographical particularities diverge between the Arctic and the Southern Ocean surrounding the Antarctic region [e.g., the Southern Ocean occupies a larger area than the Arctic one (around 20,3 million km^2), the environmental and legal/political circumstances affecting the Antarctic region are quite different from those affecting the Arctic, i.e., activity levels (e.g., navigational routes), the public interest is less advanced in the Southern Ocean than in the Arctic, and environmental transformations due to climate change are not so profound as those unfolding in the Arctic Ocean], both polar oceans are witnessing a common geopolitical challenge stemming from claims for territorial sovereignty, resource exploitation, marine scientific research and the maintenance of sound ocean governance regimes. [303] Within this context, it has also been argued that what happens in the Arctic region is likely to be echoed in the Antarctic at any time soon. So, it remains to be seen whether these two regions will experience radical changes in the short-to-long term and whether the resource extraction and/or territorial competition of the coastal states/claimants will require even more analysis.

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[302] From *The Commander's Handbook on the Law of Naval Operation*s (pp. 2-12), by Department of the Navy, Office of the Chief of Naval Operations and Headquarters; U.S. Marine Corps; Department of Homeland Security & U.S. Coast Guard, 2017.

[303] See Dodds, K., & Hemmings, A. D. (2015). Polar Oceans: Sovereignty and the Contestation of Territorial and Resource Rights. In H. D. Smith, J. L. Suárez de Vivero, & T. S. Agardy (Eds.), Routledge Handbook of Ocean Resources and Management (pp. 576–591). Routledge. (https://www.researchgate.net/publication/280757281_Polar_Oceans_Sovereignty_and_the_Contestation_of_Territorial_and_Resource_Rights).

Chapter 5: Arctic Overlaps - Filing Submissions to the CLCS

5.1. Introduction

Taking stock of the above territorial disputes in the Central Arctic Ocean, it is concluded that considerable progress has been achieved in resolving overlapping maritime claims between the adjacent Arctic states, at least within 200 nm of the coast. That said, the Arctic Five have established a bedrock for peaceful and diplomatic negotiations to resolve any existing or potential overlaps within and beyond 200 nm of their respective CSs. As each of the five coastal states has seaward natural prolongation of its landmass into the Arctic Ocean, which due to the increased ice thaw in the region, is likely to extend even more in the decades to come, it seeks to demonstrate the extent of its respective CS, by gathering and analyzing scientific data concerning the geomorphology of its CS's seabed and, under Article 76 UNCLOS, filing its submission with respect to the outer limits of the CS to the CLCS.

As observed in Appendix 1, four of the five Arctic Ocean states (Canada, Denmark on behalf of Greenland, Norway, and Russia) have lodged their Arctic submissions for review with the CLCS in order to establish their CS entitlements on several overlapping areas, with some of them already having obtained recommendations. As already mentioned, the delineation of the outer limits of the CS is a critical step in case a coastal state intends to assert sovereign rights over its ECS without the previous delimitation of maritime boundaries with neighboring states being necessary.

Having said that, this Chapter embodies the Arctic state's submissions to the CLCS regarding certain overlapping areas of the Arctic Ocean, some recommendations that have been provided by the Commission, and the challenges they might face shortly due to the increasing ice melting, as well as how to overcome them to put them on the right track.

5.2. Russian Federation: Claims, Actions & Overlapping CS areas

As pointed out above, the LOSC entered into effect for the Russian Federation in 1997, being the first coastal state that filed a formal claim to the CLCS in 2001 with respect to the outer limits of its ECS. The ratification of the Convention expanded the research and exploration activities of the Arctic seabed by Russian scientists, who were used to this kind of research mission since the 18th century. Be that as it may, the culmination of the Russian Arctic seabed research was the Arktika - 2007 expedition, i.e., the first-ever submersion to the Arctic seafloor at a great depth below ice-cap, which served a dual purpose; First, the collection of data from the Arctic Ocean and second the flag-planting beneath the North Pole, already mentioned in Chapter 3, caused quite a stir in the rest of the Arctic coastal states because of the nationalistic symbolism that was

created. The extent of the Russian Federation's resource potential in comparison with the proven reserves in the Russian Arctic and the increasing ice thaw that unlocks new shipping and resource opportunities lie behind the reasons why the Russian Federation, and, by extension, the Arctic Five, seeks to maximize its claim in the region and prevail in the oil and gas markets in the decades ahead.

Interestingly, the Russian Federation has existing or potential overlapping shelf claims with all of the Arctic Five. While the Soviet Union had since the '90s resolved a maritime boundary dispute with the US concerning a part of the Central Arctic Ocean, other Arctic states have a more extensive scope; for example, the former Soviet Union and then the Russian Federation had also overlapping claims with Norway in the Barents Sea over their EEZs and ECSs, which led to a four-decade deadlock finally terminated with the *Barents Sea Treaty* in 2010. Moreover, an ongoing scramble between Russia, Denmark, and Canada, mentioned below, is taking place over the so-called Lomonosov Ridge.

As far as the Russian Federation's submissions to the CLCS are concerned, it has so far lodged with the CLCS three submissions and two addenda regarding its ECS in the Arctic Ocean. More specifically, it has lodged one full submission in 2001 concerning its whole ECS, including the Arctic, one partial revised submission in 2015 concerning the part of the Central Arctic Ocean region, two addenda to the 2015 revised submission in 2021 presenting a further extension of its Arctic CS and a new submission filed on February 2023 referring to the previous ones.

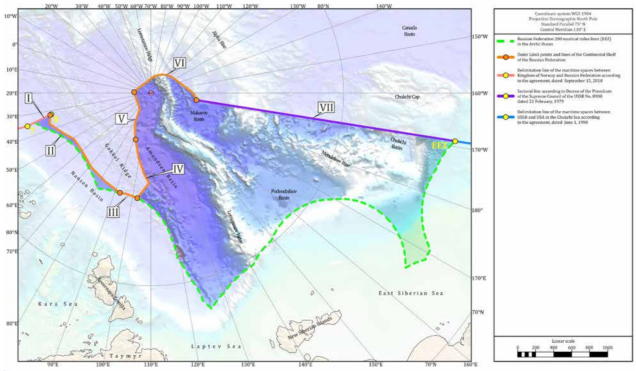
More specifically, the first submission the Russian Federation lodged with the CLCS in 2001 included information and relevant scientific data regarding the proposed outer limits of its ECS in four areas, i..e, the Barents Sea, the Bering Sea, the Sea of Okhotsk, and the Central Arctic Ocean. With this submission, the coastal state claimed an extensive area of around 1,1 million km^2 of the Arctic Ocean, requesting, by this means, that almost half the size of the Ocean would be under its control. [304]

Five third parties, Canada, Denmark, Japan, Norway, and the US, sent Notifications to the UN that commented on or challenged the 2001 Russian submission, three of which, i.e., Canada, Denmark, and the US, had not ratified the LOSC at that time. Particularly, the Permanent Missions of Canada and Denmark rejected to form an opinion on whether they consent to Russia's Arctic CS submission without the provision by Russia of additional and more accurate data to review. Of course, this inability to determine did not imply either agreement or acquiescence by the coastal states to Russia's submission. The remaining states, i.e., the US, Japan, and Norway, reserved their rights to submit their comments concerning the consideration

[304] Carlson, Hubach, Long, Minteer & Young (2013), p. 28.

of the Russian submission by the CLCS and the issuance of recommendations on that submission. The latter commented on the then-unresolved delimitation dispute between the two coastal states in the Barents Sea, eventually settled in 2010, and consented to the examination by the CLCS of the said submission with respect to the disputed area but without prejudice to their bilateral CS delimitation. The government of the US proposed further consideration concerning key aspects of the submission, and broader debate before any recommendation was adopted by the CLCS. [305] Therefore, because of the lack of sufficient supporting evidence, especially in respect of the Central Arctic Ocean, this filing, after being reviewed by the CLCS in 2002, was returned to Russia with the suggestion of submitting a revised one with more accurate data.

Thus, the Russian Federation based on the 2002 interim CLCS Recommendations and having collected new scientific data, lodged the required revised partial submission in 2015 with reference to the part of the Arctic Ocean included in its first submission. The said filing included in the Russian ECS an Arctic Ocean area of around 1.2 million km^2, that is to say, 100.000 km^2 more than the area encompassed in the previous submission. [306] The said submission covers the seabed area of the Arctic Ocean that includes the Eurasian Basin, which consists of the Nansen and Amundsen Basins, the mid-oceanic Gakkel Ridge that divides the two sub-basins, and the Central Arctic Submarine Elevations Complex including among others, the Lomonosov Ridge, the Alpha-Mendeleev Rise, and the extensive Podvodnikov and Makarov Basins that separate them. [307] Furthermore, by this submission, under Annex I, para. 2 of the Rules of Procedure of the Commission, the Russian Federation notified the CLCS of the presence of some unresolved bilateral disputes with Denmark and with Canada, citing also the agreements that had concluded with each of the four Arctic players. The Permanent Mission of Denmark, Canada, and the US Mission to the UN confirm that they do not object to the consideration of the partial revised submission made by the



Map 5.2.1.: Claimed outer limits of the CS under Article 76 UNCLOS in accordance with the 2015 partial revised submission made by the Russian Federation (Source: 2015 Executive Summary)

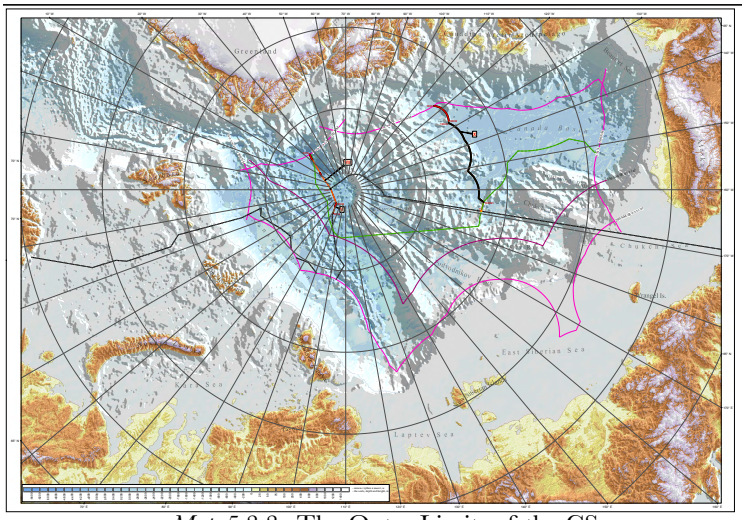
[305] See Notifications of states to the submission made by the Russian Federation to the CLCS in 2001.

[306] From "Russia's Proposed Extended Continental Shelf in the Arctic Ocean: Science Setting the Stage for Law," by K. Hossain, 2021, *American Society of International Law, 25(8),* p. 2 (https://www.asil.org/insights/volume/25/issue/8).

[307] *From Partial Revised Submission of the Russian Federation to the CLCS in respect of the Continental Shelf of the Russian Federation in the Arctic Ocean-Executive Summary* (p. 6), by Ministry of Natural Resources and Environment of the Russian Federation (etc.), 2015 (https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2015_08_03_Exec_Summary_English.pdf).

Russian Federation to the CLCS and to the issuance of recommendations on that submission, given that they will be without prejudice to any submission to the CLCS likely to be made by the other coastal states, or to any future CS delimitation between the Russian Federation and any of these states.

Further, in March 2021, the coastal state lodged with the CLCS two addenda with reference to the partial revised submission of 2015 concerning the central part of the Arctic Ocean with the aim to propose an extension of its ECS in the said region. Put tersely, the two addenda encompass: i) parts of the Eurasian Basin, i.e., the Nansen and Amundsen Basins, and the Gakkel Ridge, and ii) parts of the Amerasian Basin, i.e., the Lomonosov Ridge, the Alpha-Mendeleev Rise Complex, the Amundsen and Makarov Basin, and the Canada Basin, respectively. The supported data acquired after the filing of the 2015 revised submission reveal, on the one hand, that the Gakkel Ridge as a submarine ridge is subject to a constraint line of 350 nm from the Russian baselines and, on the other hand, that the Lomonosov Ridge and the Alpha-Mendeleev Ridge Complex relate to submarine elevations that, as stipulated in Article 76(6), are natural components of the continental margin to which the distance constraint of 350 nm from baselines does not apply. [308] Noticeably, with these two addenda, Russia proposed an enlargement of its claim by around 705.000 km^2, increasing its total assertion to approximately 2,1 million km^2 by then, that is to say, a claim that covers around 70% of the Central Arctic Ocean seabed and overlaps by 800.000 km^2 with the Danish claim. By this means, the remaining maritime space beyond national jurisdiction is estimated to be less than 14.000 km^2. [309]

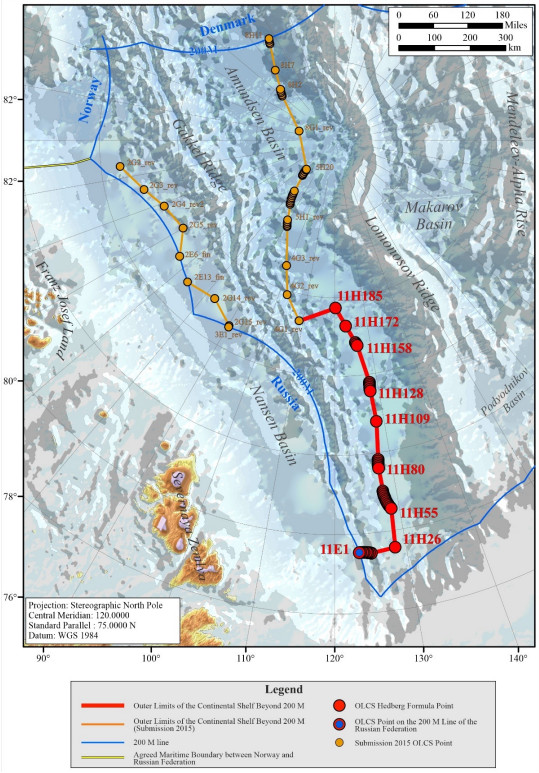


Map 5.2.2.: The Outer Limits of the CS of the Russian Federation in the Arctic Ocean with the site numbers in Addendum 1 & 2 (2021) indicated by the red lines
(Source: Addendum 2)

[308] From *Addendum to the Partial Revised Submission of the Russian Federation to the CLCS in respect of the Continental Shelf in the area of the Gakkel Ridge, Nansen and Amundsen Basins: Executive Summary* (p. 6), by Ministry of Natural Resources and Environment of the Russian Federation (etc.), 2021 (https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/Addendum_1_2021_Executive_Summary_Gakkel_Ridge_English.pdf) & *Addendum to the Partial Revised Submission of the Russian Federation to the CLCS in respect of the Continental Shelf in the area of the Lomonosov Ridge, Alpha Ridge, Mendeleev Ridge, Amundsen and Makarov Basins, and the Canadian Basin: Executive Summary* (p. 6), by Ministry of Natural Resources and Environment of the Russian Federation (etc.), 2021 (https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/Addendum_2_2021_Executive_Summary_Lomonosov_Ridge_English.pdf).

[309] From *Russia extends its claim to the Arctic Ocean seabed*, by M. Breum, 2021, Arctic Today (https://www.arctictoday.com/russia-extends-its-claim-to-the-arctic-ocean-seabed/?wallit_nosession=1).

The US Mission to the UN confirms that it does not object to the consideration of the Addendum to the partial revised submission in respect of the CS in the area of the Lomonosov Ridge and other areas of the Arctic Ocean made by Russia to the CLCS and to the issuance of recommendations on that submission, given that they will be without prejudice to the delineation of the US's ECS outer limits or any future bilateral CS delimitation. [310]



Map 5.2.3.: The claimed OLCS line of the Russian Federation in the south-east Eurasia Basin in the Arctic Ocean (2023) (Source: 2023 Executive Summary)

Put tersely, as far as the Recommendations issued at the beginning of 2023 by the Commission in regard to the 2015 partial revised submission and with the addenda submitted in 2021 are concerned, the Sub-commission, based on seismic data and additional information, came to the following key conclusions: i) the Gakkel Ridge cannot be classified as a submarine ridge, as it does not share common geomorphological characteristics with the Laptev Sea continental slope, ii) in convergence with the Russian Federation, it is of the view that the Lomonosov Ridge, the Alpha-Mendeleev Rise Complex, and the Podvodnikov Basin can be considered as submarine elevations that are natural components of the continental margin, and in particular of the East Siberian margin, pursuant to Article 76(6) and therefore the depth constraint is being applied for the establishment of the outer limits of the CS in the said areas. [311] The latter clashes with the viewpoint supported in the 2002 interim Recommendations, where, taking into account the lack of sufficient geological data and information on the deep-water part of the Arctic Basin at the time, it could consider neither the Lomonosov Ridge nor the Alpha-Mendeleev Ridge Complex as submarine elevations under the LOSC.

Moreover, the CLCS recommends that the Russian Federation make a partial revised submission regarding its outer limits of the CS in the southern part of the Amundsen Basin because of the provision of insufficient data for their definition. Be that as it may, the Commission argues that the delimitation of the CS with the neighboring coastal states may define Russia's establishment of the final outer limits of its CS in the Arctic Ocean. [312] In

[310] See the Communication received by the USA with regard to the submission made by the Russian Federation to the CLCS, 2021 (https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/20210802UsNvUN.pdf).

[311] From *Recommendations of the Commission in regard to the 2015 partial revised submission made by the Russian Federation in respect of the Arctic Ocean, with addenda submitted in 2021* (para. 73 & 106), by the CLCS, 2023 (https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2023RusRev1RecSum.pdf).

[312] *Ibid.*

short, the Russian Federation received favorable recommendations for most of its submitted claims in central parts of the Arctic Ocean except for the Gakkel Ridge.

Last but not least, in February 2023, the Russian Federation lodged with the CLCS, in accordance with the request of the 2023 Recommendations, a new partial revised submission concerning the southeastern part of the Eurasian Basin of the Arctic Ocean, with reference to the previous submissions, citing information and relevant scientific evidence regarding the proposed outer limits of its ECS. [313] The seabed areas covered in the said submission, i.e., the southeastern part of the Amundsen Basin and the Gakkel Ridge of the Eurasia Basin, were included in the previous partial revised submissions made by the Russian Federation with the aim of the outer limits of the ECS in the said parts of the Arctic Ocean to be determined.

By this submission, the Russian Federation notifies the CLCS of the presence of unresolved bilateral disputes with Denmark and Canada in areas relevant to the 2023 submission and cites the agreements that had been reached with each of the coastal states. In particular, it has concluded that the areas covered in the said submission overlap with the claimed areas included in the 2014 submission of Denmark concerning the northern CS of Greenland and with the Canadian 2019 submission and 2022 addendum to that submission concerning its ECS in the Arctic Ocean. As this submission has been filed quite recently, the CLCS's Recommendations are yet to be issued.

In sum, it is deduced that the Russian Federation remains increasingly active in its effort to expand its High North claims. This is rather obvious, taking into account that its claims in the Arctic Ocean extend from its EEZ across points somewhat beyond the North Pole to the EEZs of Canada and Denmark (Greenland), creating large tracts of overlapping areas only possible to be settled with the consideration of the submissions made by these two coastal states by the CLCS, which are not expected anytime soon.

[313] *From Partial Revised Submission of the Russian Federation in respect of the Continental Shelf of the Russian Federation in the South-East Eurasia Basin in the Arctic Ocean-Executive Summary (Volume I)*, by Ministry of Natural Resources and Environment of the Russian Federation (etc.), 2023 (https://www.un.org/depts/los/clcs_new/submissions_files/rus02_rev23/23rusrev2e.pdf).

Map 5.2.4.: Russia's evolving Central Arctic Ocean submissions
(updated in 2021)
(Source: Durham University Department of Geography)

5.3. Canada: Claims, Actions & Overlapping CS areas

Canada ratified UNCLOS in 2003, and except for being the founding member of the Arctic Council, has historically high stakes in the region. However, Canada, only recently, and especially after the 2007 Russian flag-planting beneath the North Pole, escalated the intensity of its territorial claims with the expansion and reshaping of its military forces [Canadian Forces (CF)] and the construction, among others, of more persistent icebreakers and several navy patrol ships (Arctic/Offshore Patrol Ships) to guard the national waterways (e.g., the NWP) and cement its territorial claims in the region. Formal claims of Arctic control and sovereignty were first made in the '60s when the Canadian NWP was traversed for the first time since World War II ended in 1969 by the US commercial vessel "SS Manhattan", which had converted into an icebreaker. As described in the relevant section, the said Passage has caused many controversies and concerns between the two coastal states.

Canada has staked territorial claims in certain areas of the Arctic region, where they overlap with other coastal states' claims. In particular, the first Canadian territorial claim over the Arctic waters concerns the Beaufort Sea, an overlapping area with the US, which has resulted in a

boundary dispute still ongoing but likely to be resolved by the end of the current decade (see section 4.2.5 for further analysis).

Another Arctic area of contestation, over a part of which Canada has laid a claim, is the underwater mountain range of Lomonosov Ridge that runs along the Siberian CS extending to the North Pole and then towards Ellesmere Island, the third largest Canadian Island located in the Nunavut territory. This submarine ridge, discovered during the Soviet Union's expeditions in 1948 and 1949 and named after the Russian geologist and naturalist Mikhail Lomonosov, spans roughly 1800 km [314]. In general, the submarine ridges share common geological elements with the land territory of a coastal state and thus qualify as part of its CS. [315] A three-way geopolitical race is taking place over this geographical feature's sovereignty, as it is estimated to hold around 10 billion tons of gas and oil deposits and other valuable resources such as diamonds, gold, and platinum [316].

Map 5.3.1.: The Race of the Arctic Five for the Lomonosov Ridge (Source: BBC)

In addition to Canada, Denmark and Russia claim it as an extension of their territories. Both Canada and Denmark conduct seismic research, either individually or on joint operations, to make their claims indisputable in the eyes of the international community as a whole. In the case of Canada, the scientific evidence implied clear geological links between Ellesmere Island and the Lomonosov Ridge; Thus, it is considered a submerged prolongation of the Inuit-living Nunavut territory. The mountain chain's gain is said to expand the state's territory toward the North Pole. By the same token, Denmark is of the view that the Lomonosov ridge usurps part of its Greenlandic territory, while Russia strongly regards it as an extension of the Franz Josef Land, an archipelago of its Arctic territory. Therefore, it can be deduced that this poorly charted marine area is likely to be at the same time Canadian, Danish (Greenlandic), and Russian, leading to several overlapping areas as the ridge is divided into three disputed areas (i.e., the first one is claimed by Denmark and Russia, the second one by Canada and Russia and the latter one is claimed by all three states. [317]

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[314] From *Lomonosov Ridge*, n.d., Britannica (https://www.britannica.com/place/Lomonosov-Ridge).

[315] From "Russia's Proposed Extended Continental Shelf in the Arctic Ocean: Science Setting the Stage for Law," by K. Hossain, 2021, *American Society of International Law, 25(8)*, p. 3 (https://www.asil.org/insights/volume/25/issue/8).

[316] Tan & Tsai (2010), p. 92.

[317] From *The rush to claim an undersea mountain range*, by M. Henriques, 2020, BBC (https://www.bbc.com/future/article/20200722-the-rush-to-claim-an-undersea-mountain-range).

Furthermore, it is essential to point out that the Lomonosov Ridge lies at the heart of the submissions of the three states filed to the CLCS.

Moreover, Canada recently resolved a five-decade-old boundary dispute with Denmark (on behalf of Greenland) over the sovereignty of Hans Island, notwithstanding that this dispute involved a land territory and, in fact, the only one in the Arctic region.

As far as the Canadian submissions made to the CLCS are concerned, three submissions have already been forwarded, two partial and one addendum, concerning the outer limits of its CS beyond 200 nm. The first one, made in 2013, concerned areas of CS in the Atlantic Ocean, and the latter one, somewhat broader, was filed in 2019, with respect to the CS in the Arctic Ocean. Later, in December 2022, it made an addendum to the 2019 partial submission that covers an additional area of its ECS beyond the limits provided for in the earlier partial submission, notably encompassing parts of the Central Arctic Plateau (i.e., the Lomonosov Ridge, the Alpha-Mendeleev Ridge, with the intervening Podvodnikov Basin and Makarov Basins). [318] The CLCS has not yet considered the submissions and has yet to issue recommendations in accordance with Article 76 UNCLOS. [319] In particular, the Canadian continental margin in the Atlantic Ocean stretches from offshore Nova Scotia in the south, along the Grand Banks to the northern edge of the Labrador Sea, while the margin in the Arctic Ocean comprises seafloor highs including the Central Arctic Plateau (i.e., the Lomonosov Ridge, the Alpha-Mendeleev Ridge) that is the seaward prolongation of the landmass of Canada. [320]

The tedious scientific work of the Canadian Extended Continental Shelf Program (ECSP) has demonstrated that Canada's 2019 submission covers an area of around 1,2 million km^2 of seabed and subsoil in the Arctic Ocean, which would be appended to the almost 10 million km^2 of Canadian land territory if the submission to the CLCS is positively considered. [321] Further, the 2022 addendum to the partial submission is estimated to double the Canadian CS from

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[318] From *Addendum to the Partial Submission of Canada to the CLCS regarding its continental shelf in the Arctic Ocean: Executive Summary* (p. 5), by Government of Canada, 2022 (https://www.un.org/depts/los/clcs_new/submissions_files/can1_84_2019/cda1eseng.pdf).

[319] From *CLCS-Outer limits of the continental shelf beyond 200 nm from the baselines: Submissions to the Commission: Partial Submission by Canada*, Division for Ocean Affairs and the Law of the Sea, 2022 (https://www.un.org/depts/los/clcs_new/submissions_files/submission_can1_84_2019.html).

[320] From *Partial Submission of Canada to the CLCS regarding its continental shelf in the Arctic Ocean-Executive Summary* (p. 7), by Government of Canada, 2019 (https://www.un.org/depts/los/clcs_new/submissions_files/can1_84_2019/CDA_ARC_ES_EN_secured.pdf) & *Partial Submission of Canada to the CLCS regarding its continental shelf in the Atlantic Ocean-Executive Summary*, by Government of Canada, 2013 (https://www.un.org/depts/los/clcs_new/submissions_files/can70_13/es_can_en.pdf).

[321] From *Canada marks major milestone in defining its continental shelf in Arctic Ocean*, by Government of Canada, 2019, (https://www.canada.ca/en/global-affairs/news/2019/05/canada-marks-major-milestone-in-defining-its-continental-shelf-in-arctic-ocean.html). (news release)

1,2 million km^2 to almost 2 million km^2, creating overlapping areas of around 765,2 km^2 with Denmark's submission and 744,5 km^2 with Russia's submission. [322]

Canada has delineated the outer limits of its CS in the Arctic Ocean by invoking Article 76(4) and (5) UNCLOS, and the Scientific and Technical Guidelines of the Commission. These outer limits consist of two segments interconnected through a straight line beyond which the limits cannot extend, namely this line is the outer extent of the Canadian CS in the Arctic Ocean. All the fixed points comprising the outer limits of the CS are interlinked by geodesic straight lines. [323]

Further, the establishment of these limits in the Arctic Ocean will rely on the bilateral delimitations of Canada with Denmark, Russia, and the US, which are likely to resolve any CS overlaps that arose during the submission's preparation. The above-mentioned submissions to the CLCS shall also be without prejudice to future boundary delimitation matters of the CS between neighboring states. [324] The Permanent Mission of Denmark, of the Russian Federation, and the US Mission to the UN confirm that they do not object to the consideration of the 2019 partial submission made by Canada to the CLCS and to the issuance of recommendations on that submission.

Map 5.3.2.: Canada's evolving Central Arctic Ocean submissions
(updated in 2023)
(Source: Durham University Department of Geography)

To take stock, it is observed that Canada's ongoing stakes in the Arctic region overlap with Denmark and Russia in the Lomonosov Ridge and with the US in the Beaufort Sea, though potentially as the US has not delineated the outer limits of its CSs and has yet to ratify the UNCLOS.

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[322] From *Briefing notes for IBRU Arctic map series*, by Durham University, 2023 (https://www.durham.ac.uk/media/durham-university/research-/research-centres/ibru-centre-for-borders-research/maps-and-databases/2023-arctic-maps-updated-/Briefing-notes-for-IBRU-Arctic-map-series-March-2023.pdf).

[323] *Ibid.*

[324] From *Rules of Procedure of the Commission on the Limits of the Continental Shelf*, CLCS/40/Rev. 1, 17 April 2008, Rule 46, Article 2. (https://www.un.org/depts/los/clcs_new/commission_documents.htm) & Communications received by Denmark, the USA, and the Russian Federation with regard to the partial submission made by Canada to the Commission on the Limits of the Continental Shelf.

5.4. Denmark: Claims, Actions & Overlapping CS areas

Denmark ratified UNCLOS in 2004 and organized the Ilulissat meeting that led to the *2008 Ilulissat Declaration*. It participates, along with the other Arctic coastal states, in the Arctic scramble, claiming a large slice of the Arctic Ocean. Denmark's interest in the North Pole is mainly based on the Greenlandic CS, which, as pointed out above, forms part of its autonomous territory.

Initially, it shall be mentioned that Denmark maintains sovereignty over three territories, i.e., mainland Denmark, Greenland, which remains the priority area in its Arctic policy, and the Faroe Islands. [325] The potential overlaps of entitlement between Denmark and the neighboring states lie mostly beyond Greenland's and the other states' EEZ. The exploration activities in Greenland's waters reserve a lucrative prize for the winner of the ongoing claims on the said CS. In addition to the potential for the mining of gold, several mineral deposits, such as diamonds, critical metals, including rare earth elements significant for high-end technology, and water from icebergs, there is the likelihood for large deposits of oil and gas. [326] According to the 2008 USGS, it is estimated that around 50 billion barrels of undiscovered oil and gas lie in North-Eastern, Western Greenland, and areas east of Canada, albeit future drilling may provide refined and more accurate assessment results. [327]

The potential areas Denmark claims stretch in three areas off the coast of Greenland and two off the Faroe Islands. As briefly noted previously, Denmark has reached an agreement ("*2006 Agreed Minutes*") with Norway and Iceland with respect to the future delimitation in the Southern Banana Hole [328] in the Northeast Atlantic to resolve any overlapping claims of the ECS between them. The outer limits of the CS in the specific area have been delineated to a distance of 350 nm off the Faroese coast. However, these claims do not cover the Central Arctic Ocean; Thus, further analysis of these claims is beyond the scope of the current discussion. Interestingly, though, the Faroese CS extends to the Arctic Circle, and the Faroese government plays an active role in the sustainable management of fisheries in the region, being also a signatory of the *2018*

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[325] From "Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims," by J. D. Carlson, C. Hubach, J. Long, K. Minteer & S. Young, 2013, *SAIS Review of International Affairs, 33(2)*, p. 32 (https://doi.org/gqdmz8).

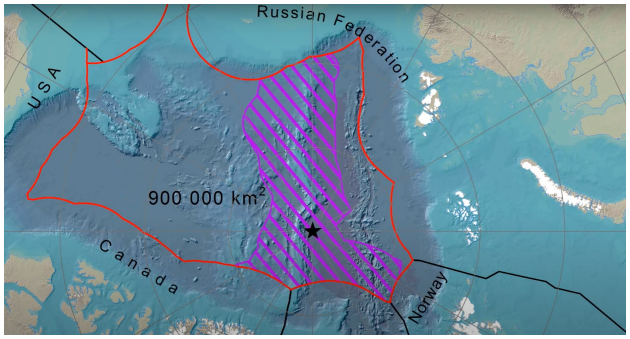
[326] From *Kingdom of Denmark Strategy for the Arctic 2011–2020* (p. 24), by Denmark, Greenland, and the Faroe Islands, 2011 (http://library.arcticportal.org/1890/1/DENMARK.pdf).

[327] *Ibid.*

[328] Banana Hole is referring to the maritime area beyond 200 nm from the baselines of the Faroe Islands, mainland Norway, Iceland, Jan Mayen, Greenland, and Svalbard (https://www.un.org/Depts/los/clcs_new/submissions_files/dnk28_09/dnk2009executivesummary.pdf).

Agreement to Prevent Unregulated High Seas Fisheries in International Waters in the Central Arctic Ocean.

Be that as it may, we will focus on the claimable areas off the coast of Greenland. In particular, these areas encompass three ridges, i.e., the Eirik Ridge, the Lomonosov Ridge, and the East Greenland Ridge, all considered natural prolongations of Greenland's landmass and are contained in the series of submissions to the CLCS. The first ridge spans around 800 km and is located in the southern part of Greenland close to Canada and the Labrador Sea, while the latter one, the smaller of the three (approx. 320 km), lies on the Northeast side of Greenland somewhere in between Jan Mayen Island and the Svalbard Archipelago. The second ridge mentioned, the Lomonosov Ridge, is of utmost importance, lying on the northern part of Greenland, which has already been described in Canada's claims above. The said ridge is one of the two areas of contention for Denmark, with the other one having been only recently resolved, i.e., the boundary dispute with Canada over the legal status of Hans Island. It is believed that Denmark has presented the boldest claim in the said area of contestation, asserting almost 900.000 km^2 of the Arctic Ocean, that is to say, 20 times the size of Denmark. [329]



Map 5.4.1.: The submission area of the Kingdom of Denmark north of Greenland [Source: Geological Survey of Denmark and Greenland (GEUS)]

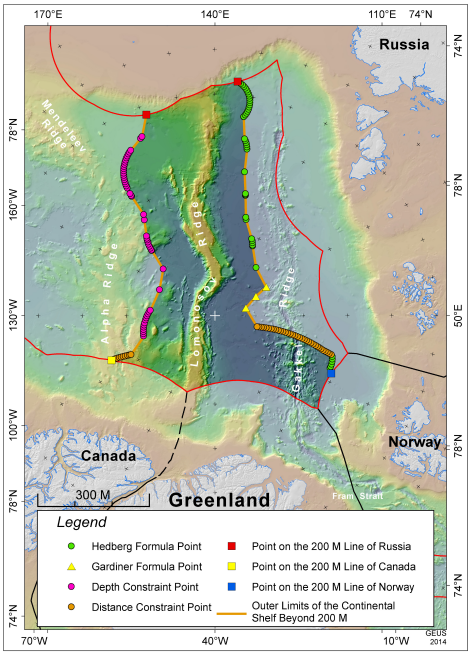
Regarding the Danish submissions to the CLCS, five partial submissions have been lodged for all of its claimable areas. In particular, the Government of the Kingdom of Denmark has filed two partial submissions jointly with the Faroese Government concerning the area north and south of the Faroe Islands in 2009 and 2010, respectively, the first of which received recommendations in 2014. Further, three partial submissions have been lodged jointly by the Danish Government and the Greenlandic Government concerning the Southern (approx. 115.000 km^2), the North-Eastern (approx. 62.000 km^2), and the Northern CS of Greenland in 2012, 2013, and 2014 respectively, which are still awaiting the Commission's consideration and issuance of recommendations. [330] As for the last submission of

[329] From *Why does Denmark think it can lay claim to the North pole?,* by P. Barkham, 2014, The Guardian (https://www.theguardian.com/world/shortcuts/2014/dec/16/why-denmark-thinks-it-can-lay-claim-to-north-pole).

[330] From *Partial Submission of the Government of the Kingdom of Denmark together with the Government of Greenland to the CLCS regarding its continental shelf in the Arctic Ocean-Executive Summary*, 2014, Geological Survey of Denmark and Greenland (GEUS) (https://www.un.org/depts/los/clcs_new/submissions_files/dnk76_14/dnk2014_es.pdf).

2014, the then Denmark's Foreign Minister called it a "historic and important milestone" for the state. [331]

The Continental Shelf Project of the Kingdom (CSP), since its commencement in 2002, in the context of Article 76, despite the challenging ice conditions, during its several expeditions, has obtained the necessary data (i.e., bathymetric data and seismic reflection data) for the delineation of the outer limits of the ECS in these three areas off the coast of Greenland with the centerpiece being the area surrounding the Lomonosov Ridge. The scientific work of the CSP has revealed that this underwater mountain chain is a prolongation of the Northern continental margin of Greenland in both morphological and geological terms. Therefore, the claim filed in 2014 concerning the northern part of Greenland is mainly based on the CSP's data acquisition during the period 2006-2012.



Map 5.4.2.: The outer limits of the Northern CS of Greenland [Source: Geological Survey of Denmark and Greenland (GEUS)]

The Kingdom of Denmark has delineated the outer limits of the Northern, North-Eastern, and Southern CS of Greenland by invoking the provisions of Article 76(4), (5) & (6) LOSC. As in the case of Canada, all the fixed points comprising the outer limits along the Greenlandic CS are interlinked by geodetic straight lines. Several unresolved questions remain with respect to the delimitation of the Northern, North-Eastern, and Southern CS of Greenland, as there are potential overlapping shelf claims with Canada, Norway, the US, Russia, and Iceland. More concretely, the outer limits of the Southern CS of Greenland overlap with the 2013 proposed outer limits of Canada's CS and with the 2009 proposed outer limits of Iceland; the outer limits of the North-Eastern CS of Greenland overlap with the 2006 Norway's submission in the Arctic Ocean; the outer limits of the Northern CS of Greenland overlap again with the 2013 proposed outer limits of Canada's CS, the 2006 Norway's submission, with the 2015 proposed outer limits of Russia's revised submission and potentially

[331] *Denmark challenges Russia and Canada over North Pole*, 2014, BBC (https://www.bbc.com/news/world-europe-30481309).

with the potential US's claims in the Arctic Ocean. [332] Therefore, the establishment of the outer limits along the Greenlandic CS relies on the bilateral agreements that are likely to resolve the existing or potential overlaps. The Permanent Mission of Norway, of Canada, of the Russian Federation, and the US Mission to the UN confirm that they do not object to the consideration of the partial submission made by the government of Denmark together with the government of Greenland to the CLCS regarding the northern ECS of Greenland and to the issuance of recommendations on that submission, given that they will be without prejudice to any submission to the CLCS likely to be made by the other coastal states, or to any future CS delimitation between the Government of the Kingdom of Denmark and any of these states.

To take stock, it is observed that for the time being, Denmark's potential claims in the area of the Central Arctic Ocean overlap with Russia and Canada in the waters surrounding the Lomonosov Ridge.

5.5. Kingdom of Norway: Claims, Actions & Overlapping CS areas

Norway was the first of the Arctic Five that ratified UNCLOS in 1996. It shall be mentioned that Norway, likewise Denmark, maintains sovereignty over three territories, i.e., the mainland of Norway, Jan Mayen Island, and the Svalbard Archipelago. As mentioned above (in section 3.9.5.), although Norway is a pioneer in decarbonization and the energy transition to renewable energy resources, it is considered the third-largest exporter of n.g. worldwide and the second-largest supplier to the European market of n.g. Moreover, since petroleum and n.g. exploration commenced, initially in the North and Norwegian Sea, during the late-60s, and in the Barents Sea, during the early '80s, several world-class discoveries, such as the Johan Sverdrup oil field and the Korpfjell n.g. well, have been made around the Norwegian promising CS that is estimated at more than one million km^2, indicating the strong potential for future hydrocarbon resources from the ECS, which justifies the large claimable areas.

Norway's sway in the Arctic region is focused on three separate areas that overlap with other coastal states' claims. In particular, the first Norwegian territorial claim over the Arctic waters concerns the Western Nansen Basin lying north of the Svalbard Archipelago, to which Norway was granted "full and absolute sovereignty" through the *1920 Svalbard Treaty* (see further in

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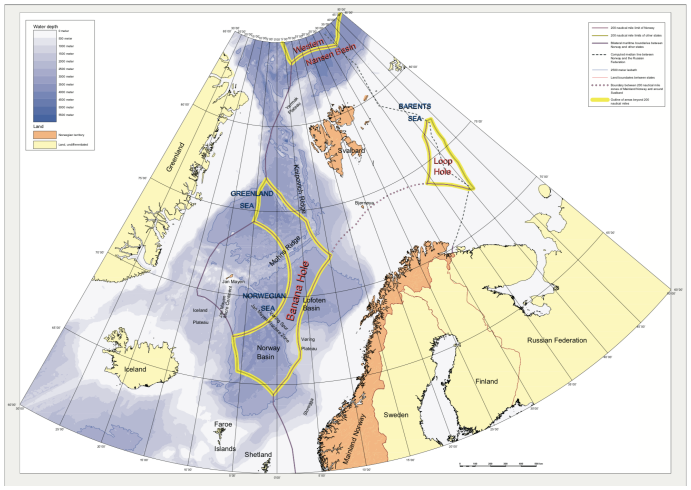
[332] From *Ibid, Partial Submission of the Government of the Kingdom of Denmark together with the Government of Greenland to the CLCS regarding its continental shelf in the Arctic Ocean-Executive Summary*, 2012, Geological Survey of Denmark and Greenland (GEUS)(https://www.un.org/depts/los/clcs_new/submissions_files/dnk61_12/DNK2012_EX_SUM_S_GREENLAND.pdf) & *Partial Submission of the Government of the Kingdom of Denmark together with the Government of Greenland to the CLCS regarding its continental shelf in the Arctic Ocean-Executive Summary*, 2013, Geological Survey of Denmark and Greenland (GEUS) (https://www.un.org/depts/los/clcs_new/submissions_files/dnk68_13/DNK2013_ES.pdf) for a more detailed analysis of the potential overlaps with each of the coastal state mentioned.

section 4.2.4.). Notwithstanding the divergent interpretations regarding the geographical application of specific provisions of the Treaty, delineating the outer limits of the CS has no bearing on the matter of the nondiscrimination principles and does not impact Norway's sovereign rights over the CS appurtenant to its land territory.

Moreover, Norway resolved the seething maritime dispute with the Russian Federation concerning the overlapping Loop Hole area of the Barents Sea with an agreed delimitation in 2010. Finally, Norway has competing claims concerning the ECS with Iceland and Denmark/the Faroe Islands in the southern part of the Banana Hole in the North Atlantic Ocean. Following consultations between the three parties, a procedural agreement was concluded in 2006, known as the *Agreed Minutes*, which provided the basis for the final delimitation boundaries. All three states included this overlapping area in their submissions to the CLCS, which adopted recommendations thereon. In 2019, the *Agreed Minutes* were revised by signing three parallel bilateral agreements to determine the final boundary lines between the three coastal states and their respective entitlements to the seabed resources underneath these areas. [333] Accordingly, the final delimitations will be effected when these three agreements enter into force, namely when all three parties ratify them. [334]



Map 5.5.1.: Overview of the three maritime areas beyond 200 nm covered by the 2006 submission of Norway to the CLCS (Source: Norwegian Petroleum Directorate)

Concerning the Norwegian submissions to the CLCS, three submissions have been filed so far with regard to the outer limits of its ECS. The first one, made in 2006, included three maritime areas, i.e., the Western Nansen Basin in the Arctic Ocean, the Loop Hole in the Barents Sea, and the Southern Banana Hole in the Norwegian Sea, while the second one, made in 2009, aimed to establish the outer limits of its ECS in respect of Bouvetøya Island in the South Atlantic Ocean and Dronning Maud Land in the Southern Ocean, but is without our scope as these areas belong to the Atlantic region and Antarctica respectively. The third filing is a revised submission to the 2009 submission, concerning only the CS off Bouvetøya. Interestingly, as far as the Dronning Maud

[333] From *Agreed Minutes on the Delimitation of the Continental Shelf beyond 200 nm between the Faroe Islands, Iceland, and Norway in the Southern Part of the Banana Hole of the Northeast Atlantic*, 2006 (https://www.regjeringen.no/en/dokumenter/Agreed-Minutes/id446839/).

[334] *Ibid.*

Land is concerned since it is subject to the provisions of the *1959 Antarctic Treaty,* Norway requested the CLCS not to consider, for the nonce, the information related to the CS appurtenant to Antarctica, recalling the significance of the harmonious co-existence of the Antarctic Treaty System and the LOSC, and ensuring the continuing peaceful cooperation, security, and stability in the Antarctic area a viewpoint which was supported by all the states that have submitted their Notifications in respect of the said Norwegian submission. [335]

Following the 2006 submission made by Norway, the Permanent Mission of Denmark/Greenland and Iceland issued notes of non-objection regarding the outer limits of its ECS in the Southern Banana Hole and to the issuance of recommendations on that submission, given that they will be without prejudice to any submission to the CLCS likely to be made by the other coastal states, or to any future CS delimitation between the Government of Norway and any of these states. Further, the Permanent Mission of the Russian Federation submitted also a note verbale of non-objection to the consideration of the submission made by the government of Norway to the CLCS regarding the Barents Sea, while the Permanent Mission of Spain, albeit beyond the scope of the current discussion, nevertheless a contracting party to the *1920 Svalbard Treaty*, commented on the submitted CS extension around the Svalbard Archipelago, requesting Norway to respect the rights of the other parties to the Treaty.

Put tersely, concerning the Recommendations issued in 2009 by the CLCS with respect to the 2006 Norwegian submission, the Commission recognized the legal entitlement of the coastal state to establish an ECS in the Loop Hole area, as it is part of the submerged seaward extent of the Norwegian land territory. Underpinned by a similar logic, the CLCS recognized the legal entitlement of Norway to delineate ECS in the Western Nansen Basin area. [336]

Be that as it may, Norway established the outer limits of its ECS, becoming the first Arctic coastal state to receive favorable recommendations from the CLCS in 2009 with respect to its 2006 submission. The ECS off mainland Norway, Svalbard, and Jan Mayen is estimated to cover an area measuring around 235.000 km^2, without however approaching the area close to the North Pole. [337]

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[335] From *Continental Shelf Submission of Norway in respect of Bouvetøya and Dronning Maud Land-Executive Summary*, by Norwegian Petroleum Directorate, 2009 (https://www.un.org/depts/los/clcs_new/submissions_files/nor30_09/nor2009_executivesummary.pdf).

[336] From *Summary of Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Norway in respect of Areas in the Arctic Ocean, the Barents Sea and the Norwegian Sea on 27 November 2006*, by the CLCS, 2009 (https://www.un.org/depts/los/clcs_new/submissions_files/nor06/nor_rec_summ.pdf).

[337] From *Continental Shelf – questions and answers*, by Ministry of Foreign Affairs of Norway, 2020 (https://www.regjeringen.no/en/topics/foreign-affairs/international-law/continental-shelf--questions-and-answers/id448309/).

5.6. USA: Claims & Prospects of Ratifying UNCLOS

The US, even though it extensively participated in the negotiation process that led to UNCLOS III and in the subsequent negotiations concerning the modification of *Part XI Implementing Agreement,* remains a non-signatory to the LOSC and, at least for the time being, cannot file its submissions for the asserted (Arctic) CS claims to the CLCS. The fact that the US has yet to ratify the Convention has its origins back in the period of the signing of the Convention with the dissenting opinion of the American conservatives (led by President Reagan) that the wealth of the seabed lying beyond the limits of territorial sovereignty constitutes the common heritage of mankind. They argued, therefore, that "*if that wealth belongs to everybody, why is anybody's permission needed to reap it*?". [338]

The following US presidencies, especially President George Bush's administration, that in 2009 issued a Presidential Directive, which described the US as an Arctic nation with national security interests in the region and urged it to act properly to solidify the outer limit of its CS in the Arctic as far as permitted under international law [339], pushed for ratification of the LOSC. The strong opposition of the Republicans, though, which continue to account for the majority of the Congress members, has not led to the accession and ratification of the LOSC to date. Nonetheless, the US abides by the LOSC as it remains a signatory to the 1958 Geneva LoS (i.e., it is a party to the CTS and CCS) and supports the bulk of the UNCLOS's provisions, recognizing that they form part of customary international law. Here, the paradox resides in the fact that the provisions of the 1958 Conventions are considered outmoded and less beneficial compared with the UNCLOS provisions. [340] Put tersely, while the US's domestic case law and policy conform with the UNCLOS, in fact, the coastal state does not obtain the benefits descending from its potential membership to the Convention.

On the other hand, the US does not differ from the other four Arctic Ocean states in that it is of the view that it has great sway over the Arctic territories and that it shall play a key role in the "land-grabbing Arctic scramble". Besides, in order to verify the extension of its CS beyond 200 nm, the US Extended Continental Shelf Project (ECSP) commenced, in 2008, seafloor-mapping research in several areas of the Arctic region, including the Gulf of Alaska in the Bering Sea,

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[338] From *Salvaging the Law of the Sea*, 1994, The New York Times, p. A18 (https://www.nytimes.com/1994/07/12/opinion/salvaging-the-law-of-the-sea.html).

[339] See National Security Presidential Directive 66 [on Arctic Region Policy], 2009, Administration of George W. Bush (https://www.govinfo.gov/content/pkg/PPP-2008-book2/pdf/PPP-2008-book2-doc-pg1545.pdf).

[340] From *The Law of the Sea Convention: The Case for Senate Action*, by R. G. Lugar, 2004, Brookings Institution (https://www.brookings.edu/on-the-record/the-law-of-the-sea-convention-the-case-for-senate-action/).

where it spent around $5.6 million [341] and continues to conduct seismic data activities for the sake of delineating the outer limit of its ECS. Importantly, the US's ECS is estimated to be one million km^2 comprising, among others, areas in the Arctic Ocean north of Alaska, the Atlantic East Coast, the Bering Sea, and two areas in the Gulf of Mexico, with the prospect of an extension of its ECS to other areas as well. [342]

Map 5.6.1.: The Areas Comprising the ECS of the U.S.
(Source: U.S. Department of State)

The US's non-party status excludes it from legally asserting and protecting its maritime and energy interests by presenting its claims to the CLCS. By delaying the ratification of the LOSC, it risks undermining its territorial sovereignty over overlapping areas with the Arctic neighbors, especially with Canada, with which a boundary dispute in the Beaufort Sea is still ongoing (see section 4.2.5.). Failure to assume a leadership role in international negotiations regarding ocean affairs would allow other Arctic states to solidify their stakes in the region, excluding the US from distributing the potential natural resources lying in the Arctic seabed.

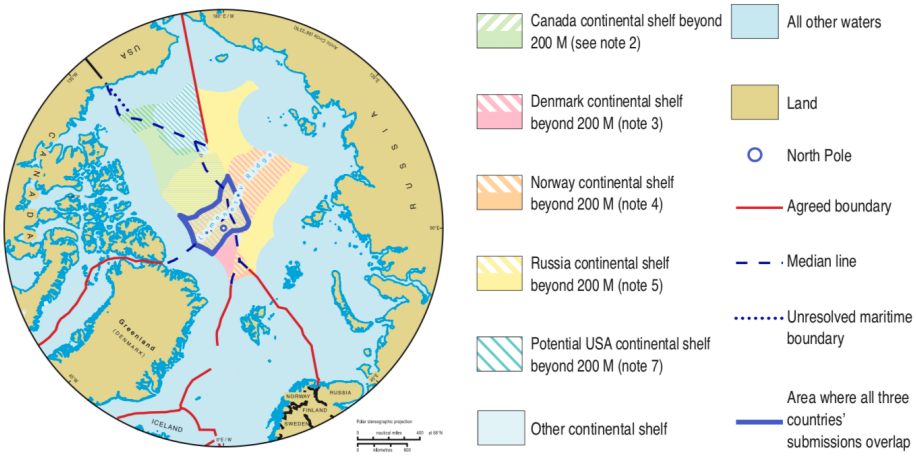
Interestingly enough, if the map published by Durham University's International Boundaries Research Unit (IBRU) is taken into consideration (see map 5.6.2.), the US, by ratifying the LOSC, could gain claimable Arctic territory. More specifically, the said map presents an almost doubling of the current possessions in the region's seafloor (i.e., in the Alaskan North Slope Basin) in case of an extent of the US's CS. [343] Moreover, it could help defend its claim regarding the NWP as an international strait rather than Canadian internal waters. Therefore, and taking into account that the UNCLOS has served as "the cornerstone of US's oceans policy since the '80s", it remains to be seen whether the US will be granted a seat at the Arctic table by filing its submission to the CLCS as a non-party, acceding to the LOSC and leaving aside the argument of potential losses because of revenue sharing requirements from the

[341] From "Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims," by J. D. Carlson, C. Hubach, J. Long, K. Minteer & S. Young, 2013, *SAIS Review of International Affairs, 33(2)*, p. 37 (https://doi.org/gqdmz8).

[342] From *About the U.S. Extended Continental Shelf Project*, n.d., U.S. Department of State (https://www.state.gov/about-the-u-s-extended-continental-shelf-project/).

[343] From "The Scramble for the Arctic: The United Nations Convention on the Law of the Sea (UNCLOS) and Extending National Seabed Claims," by J. D. Carlson, C. Hubach, J. Long, K.Minteer, & S. Young, 2009, SSRN Electronic Journal, p. 37 (https://doi.org/10.2139/ssrn.1472552).

ECS profits deriving from Article 82 UNCLOS [344], or opting to publicize its ECS scientific evidence independently.



Map 5.6.2. : CS Submissions in the Central Arctic Ocean (updated in 2023) (Source: Durham University Department of Geography)

[344] See LOSC, Article 82.

Chapter 6: The legal status of the Passageways in the Arctic: Northwest Passage & Northern Sea Route

6.1. Introduction

The advent of climate change and the subsequent decline in the Arctic ice extent has made the region more accessible for human activities, undoubtedly impacting the fragile marine ecosystems and the local communities. Among these activities, the generation of new commercial and trading opportunities and the opening up of new waterways and international shipping routes are of utmost importance. By this means, the global transport system when it comes to shipping is in a reshaping process.

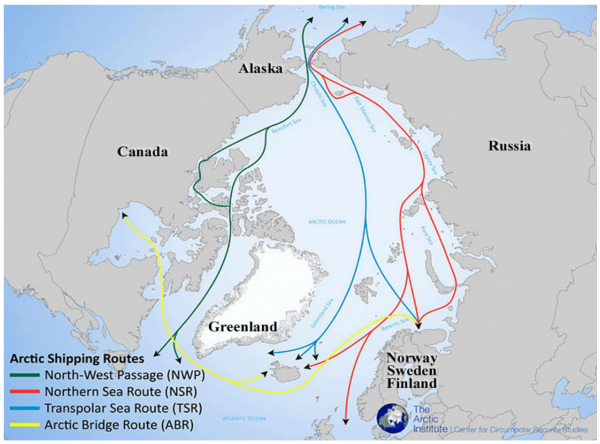


Fig. 6.1.: Trans-Arctic Major Shipping Routes (Source: International Shipping Routes for Cargo Transportation in the Arctic)

The newly formed Polar Code, mentioned below, refers to four Arctic trade routes, which are likely to become commercially viable as the ice sheets are melting at an accelerated rate. These are the following: the Northern Sea Route (hereinafter NSR), the Northwest Passage (hereinafter NWP), the Transpolar Sea Route (hereinafter TSR), i.e., a future mid-ocean route connecting the Atlantic with the Pacific Ocean, and the Arctic Bridge, i.e., a seasonal route linking seaports between Russia (Murmansk) and Canada (Churchill). Among these, special reference shall be made to the first two trade routes, i.e., the NSR and the NWP as they have been the cause of geopolitical tension among the main Arctic states.

The NWP and the NSR represent blatant examples of such trade routes, to which the applicability of the right of "transit passage" in international straits constitutes a contentious legal debate among the Arctic states, notably among Canada-US and Russia-US. More specifically, according to the Scott Polar Research Institute, the NWP consists of seven shipping routes connecting the Atlantic with the Pacific Ocean, passing through the Canadian Arctic Archipelago, while the NSR is any transit route along the Russian northern coast.

Until recently no significant commercial transit was recorded through these routes as the region was frozen for most of the year, and the prospect of an Arctic shipping corridor seemed highly unlikely. Nevertheless, as larger areas are starting to be navigable for longer summer periods, due to rising temperatures, the usage of both passages is becoming increasingly vital for international navigation, as it drastically reduces the transit distance compared to traditional shipping routes

via the Suez and Panama Canals, as well as the fuel costs. Table 1 below represents the foreseen accessibility of the said routes during the summer period in the coming decades in comparison with the period 2000-2014.

According to estimates, the NWP is said to cut by at least 7.000 km the length of the journey compared with the current route through the Panama Canal [345], while the NSR is said to be 40% shorter than the traditional route through the Suez Canal or around the Cape of Good Hope [346].

Table 6.1.: Predicted Maritime accessibility of the Trans-Arctic routes in 2045-2059 in comparison with 2000-2014 (July-September)

ROUTE	LENGTH (KM)	% ACCESSIBLE, 2000-2014	% ACCESSIBLE, 2045-2059
Northwest	9,324	63	82
Northern Sea	5,169	86	100
Transpolar Sea	6,960	64	100
Arctic Bridge	7,135	100	100

(Source: Arctic Yearbook 2012, "The Future of Arctic Shipping Along the Transpolar Sea Route")

6.2. Northwest Passage

The NWP can be described as a transcontinental maritime route connecting two oceans, the Atlantic and the Pacific, passing through the Canadian Arctic. In 1985, Canada, drawing straight baselines around its Arctic archipelago [347], claimed the whole area that the NWP crosses as part of its historic internal waters and therefore not subject to either the transit or innocent passage rights of third coastal states.

The said claim was based on the fact that the Inuit people, from whom approximately 65.000 live currently in the northern regions of Canada, have historically used the ice-covered areas, rendering the said maritime zone under Canada's full sovereignty, albeit such "historic usage" is not legally established. It is also stated that coastal states enjoy full sovereignty over their

[345] From "International Shipping Routes for Cargo Transportation in the Arctic", by Yu.F. Lukin, 2020, *Arktika i Sever [Arctic and North]*,*40,* p. 206 (http://www.arcticandnorth.ru/upload/iblock/784/187_212.pdf).

[346] From "Maritime Shipping on the Northern Sea Route: Need for Greater Emphasis on Mutual Cooperation and a Non-Negotiable Safety Culture. Part I", by J. Bhagwat, 2020, *Arktika i Sever [Arctic and North]*, *39,* (shorturl.at/psvBU).

[347] For straight baselines see LOSC, Article 7(1) and Tanaka, p. 46.

internal waters. [348] By this means, Canada implements a national shipping regime over this internal waterway, declining any suggestion that the Passage's status can be described as an international strait. However, in conformity with Article 8(2) UNCLOS, in case the establishment of straight baselines drawn in conformity with the Convention has the effect of enclosing as internal waters areas previously considered territorial waters or high seas, a right of innocent passage exists in those waters. Besides the straight baselines and the historic title, the Canadian government bases its claims for sovereignty over the NWP on the sector principle, according to which international boundaries over sea areas are extending in the Arctic toward the North Pole following the lines of longitude (meridians). Neither this principle was legally accepted. [349]

Fig. 6.2.: The Northwest Passage (Source: The Washington Post)

At the same time, other countries led by the US and the EU, have consistently protested Canada's claims of sovereignty over NWP, being of the view that the said Passage is regarded as international waters, used by all foreign vessels for international navigation under UNCLOS's transit passage principle, and consequently, Canada is not permitted to restrict transit passage through these waters. If the US's position is applied, then their registered vessels are not obliged to seek the consent of the coastal state to venture into the Passage. Interestingly enough, Russia recognizes Canada's claim over the NWP, as Canada does the same for the NSR. [350]

The different interpretations of the status of the NWP among the two coastal states that posed the likelihood of conflict found temporarily a common ground with the *Agreement on Arctic Cooperation between Canada and the United States* signed in 1988. By this Agreement, the US and Canada agreed to "undertake to facilitate navigation by their icebreakers in their respective Arctic waters and to develop cooperative procedures for this purpose". [351] In addition, the said Agreement promoted the sharing of research information between the two littoral states and provided that any venture through the NWP by the US should be undertaken with Canada's

[348] LOSC, Article 2(1).

[349] From "The Sector Theory and the Canadian Arctic, 1897–1970," by J. Cavell, 2019, *International History Review, 41(6)* (https://doi.org/jtfn).

[350] From *Geopolitical Implications of New Arctic Shipping Lanes,* by G. Gricius, 2021, The Arctic Institute (https://www.thearcticinstitute.org/geopolitical-implications-arctic-shipping-lanes/).

[351] From Agreement on Arctic Cooperation between Canada and the United States of America (https://treaties.un.org/doc/Publication/UNTS/Volume%201852/volume-1852-I-31529-English.pdf).

consent. [352] The agreement's outcome was that the two coastal states "agreed to disagree" concerning the legal regime of the NWP. Therefore, notwithstanding the Agreement, the US seems to disregard Canada's sovereignty over the said marine territory, seeking increased monetary benefits from the shorter commercial lane through the Arctic. Moreover, recently enough, the former US Secretary of State, Mike Pompeo, highlighted in his speech at an Arctic Council Ministerial meeting that Canada's claim over the Passage is "illegitimate", restating the long-held US position that the NWP is regarded as an international strait over which coastal states enjoy the freedom of navigation. [353]

In addition, the Inuit people are trying to intervene through the ICC, a forum that represents all Inuit from Alaska, Canada, Greenland, and Russia (Chukotka), in the negotiations regarding the Passage, reaffirming Canada's sovereignty over it, as they regard the Passage as part of their Arctic homeland (i.e., Inuit Nunangat). According to the President of the ICC, "Canadian sovereignty is based on Inuit-Crown land claims agreements as well as more than four millennia of Inuit land use and occupancy throughout the region". [354] Therefore, and under Article 26(1) of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), Inuit "have the right to the lands, territories, and resources that they have traditionally owned, occupied, or otherwise used or acquired". [355] Thus, the fact that they have occupied and utilized the ice-covered areas, encompassing a large area of the NWP, from time immemorial, renders the marine ventures of the US through the NWP unlawful.

The shipping traffic on the NWP was modest in 2013, with only 22 vessels navigating along the route, while in 2014 a drop was observed, with approximately 16 vessels sailing the route. Interestingly, the same year marked the first time a vessel traversed the NWP without icebreaker support. [356] According to a report published by the Protection of the Arctic Marine Environment Working Group, known as PAME, from 2013 to 2019 the number of vessels navigated along the NWP waters increased by almost 45%, that is to say from 112 to 160 vessels, with the majority

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[352] *Ibid.*

[353] From *Inuit and Canada Share Northwest Passage Sovereignty – ICC Canada President* [Press Release], by N. Latreille, 2019, Inuit Circumpolar Council (ICC) (https://www.inuitcircumpolar.com/press-releases/inuit-and-canada-share-northwest-passage-sovereignty-icc-canada-president/).

[354] *Ibid.*

[355] From United Nations Declaration on the Rights of Indigenous Peoples, Article 26(1) (https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf).

[356] From "Article 234 of the United Nations Convention on the Law of the Sea: The Overlooked Linchpin for Achieving Safety and Security in the U. S. Arctic?", by S. P. Fields, 2016, *Harvard National Security Journal, 7*, p. 64 (https://harvardnsj.org/wp-content/uploads/2016/02/Fields-PUBLISH.pdf).

of them being Canadian-flagged. [357] Moreover, the elimination of the distance through the NWP is noteworthy, as for example a journey from Shanghai to Rotterdam accounts for around 3.500 km less than the Suez Canal. Nonetheless, given that the prevailing ice conditions in the NWP are harsher than those of the NSR, the accessibility and maritime activity along its waters are still limited. It is expedient to note, though, that according to some scientists, the NWP is likely to be "nearly ice-free" during the entire summer period, as early as 2050, with its commercial viability to be therefore increased, raising more contentious debate over its legal status.

6.3. Northern Sea Route

As reflected in Soviet and then Russian legislation, the NSR is considered a national transportation route, with a growing role in opening up transport and commercial opportunities both in the Arctic region and worldwide.

The NSR, being the main part of the North-East Passage (NEP) and the shortest shipping lane connecting Northern Europe with Southeast Asia, runs along the Russian coastline and in particular along five seas, i.e., the Barents Sea, Kara Sea, Laptev Sea, East Siberian Sea, and the Chukchi Sea. The said shipping lane is utilized more as a regional supply and export waterway, rather than a transcontinental sea corridor. It is not regarded as a linear route; therefore, the vessels can choose the optimal route depending on the varying ice conditions.

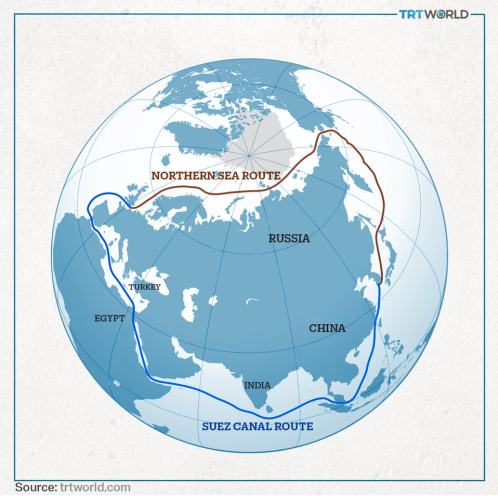

Fig. 6.3.1.: Northern Sea Route vs. Suez Canal (Source: TRT World)

Widely used over time, the NSR is now navigable for an extended period of the year (i.e., from late June to mid-November), due to the ice shrinking, and operates all-year-round under icebreaker assistance, being the principal route for the Russian Arctic trade. The aggressive growth of Russia's resource development projects in the Arctic benefits the NSR. As the ice cover begins to thaw for longer periods of each year, the construction of ice-class local infrastructure, including pipelines, and LNG plants, such as the Yamal LNG, is going to prove ever more challenging, and hydrocarbon resources may increasingly be exported to European and Asian markets via the said route. Be that as it may, it is deemed that

[357] From *Shipping in the Northwest Passage: Comparing 2013 with 2019* (p.16), by Protection of the Arctic Marine Environment (PAME), 2021 (https://oaarchive.arctic-council.org/bitstream/handle/11374/2734/ASSR%20Report%203_.pdf?sequence=1&isAllowed=y).

the NSR will remain a niche trade route and will primarily be used for domestic exports of natural resources.

The said route was largely affected by political decisions governing its usage throughout history. It played a crucial role during the Cold War era when it was utilized as a national seaway, with closed access to foreign shipping. This situation was altered by the announcement of then General Secretary of the Communist Party of the Soviet Union, Mikhail Gorbachev, in 1987, in light of the collapse of the USSR, to open the NSR for international navigation, promoting at the same time the cooperation among the Arctic States.

The NSR, compared to the more commonly used waterways, provides a shortcut for shipping companies to transfer their goods from Europe to Asia, offering reduced transit time, cost savings, and avoiding the risk of piracy (see relevant section). To give an example of such a distance saving, just take into consideration that a journey from Japan to Europe through the Suez Canal takes approximately 22 days (around 10.000-11.000 nm), whereas through the NSR takes only 10 days (around 6.000-8.000 nm), namely a time saving of about 50% in comparison with the southern alternatives, albeit the distance saving can vary depending on the ports of origin and destination, as well as the specific route taken through the NSR, which can vary depending on ice conditions. At this point, it is expedient to mention that although the journey along the NSR is considered shorter, the vessels are obliged to sail into the still-icy waters more slowly to ensure their safety, enhancing, by this means, the vessels' energy efficiency performance by reducing the greenhouse-gas emissions (GHGs). [358]

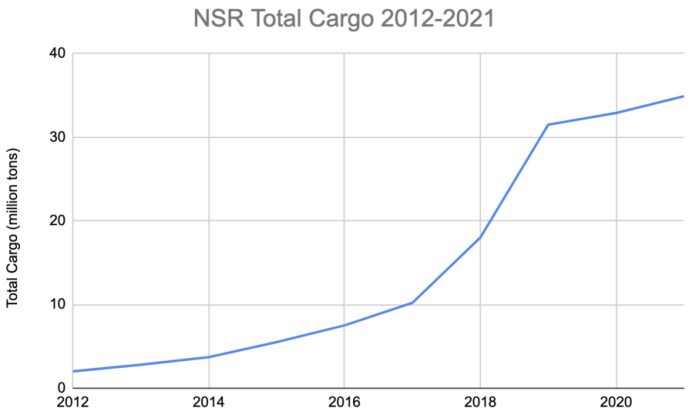

Fig. 6.3.2.: NSR cargo volume in million tons 2012-2021
(Source: Based on information by the NSRA)

Although during the first decade of the 2000s the NSR presented a slow growth of cargo volume, the following period was marked by a steady increase in its commercial viability, given the construction of new icebreakers, and the "repurposing" of Russia's Northern Fleet in 2014. The turning point was in 2013, with the approval of the new Rules of navigation in the water area of the NSR (which substituted the older version of Rules from the '90s) and the establishment of the Northern Sea Route Administration (NSRA), which issued 635 permissions to vessels to navigate along the NSR waters for 2013. However, in 2013, 71 transits through the NSR were

[358] From *The Future of Arctic Shipping*, by M. Humpert & A. Raspotnik, 2012, The Arctic Institute (https://www.thearcticinstitute.org/future-arctic-shipping/).

recorded, from which only 41 were complete. [359] In 2018, around 800 permissions were issued, although the vast majority were Russian-flagged vessels. In 2021, the total freight turnover was raised to almost 35 million tons [360], marking a record amount of cargo volume, from approximately 1.35 million tons in 2013, and is expected to reach 80 million tons by 2025 and 110 million tons by 2030 [361] , though they are considered rather unrealistic targets.

It is worth noting, though, that the cargo volume transported via the NSR is still relatively small compared to other major shipping routes, such as the Suez Canal or the Panama Canal. For example, according to official data, the Suez Canal transported over 1.27 billion tons of cargo in 2021, while the Panama Canal transported over 500 million tons of cargo in the same year. Nonetheless, the scale of cargo transported through the NSR has already started to increase and is likely to increase even more in the short term, depending on the hydrocarbons' extraction rate and the increases in shipping traffic.

Furthermore, according to a survey concluded by the Arctic Council in 2009, it is predicted that vessels will be capable of navigating along the NSR without an icebreaker escort for 90-100 days only by 2080. [362] For the time being, 18 Russian icebreakers are engaged to ensure safe navigation in the water area of the NSR [363], with "*Arktika*" being the world's largest and most robust nuclear-powered icebreaker. At the same time, the US's fleet possesses only two icebreakers, and its vessels are not considered ice-capable, rendering it at a comparative disadvantage in comparison with the Russian Federation. Although the NSR is a crucial shipping lane for Russia, several challenges should be overcome to improve the operation and the economic viability of the NSR, such as the implementation of the projects focused on building an integrated infrastructure along the said route, the modernization of the icebreaker fleet and the construction of additional search and rescue centers in the Russian Arctic.

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[359] From *Arctic Shipping: An Analysis of the 2013 Northern Sea Route Season* (p. 5), by M. Humpert, 2014, The Arctic Institute (https://www.thearcticinstitute.org/wp-content/uploads/2014/10/Arctic-Shipping-Analysis-of-the-2013-NSR-Season.pdf).

[360] From *Cargo Volume on Northern Sea Route Reaches 35m Tons, Record Number of Transits*, by M. Humpert, 2022, High North News (https://www.highnorthnews.com/en/cargo-volume-northern-sea-route-reaches-35m-tons-record-number-transits).

[361] From "Maritime Shipping on the Northern Sea Route: Need for Greater Emphasis on Mutual Cooperation and a Non-Negotiable Safety Culture. Part I, " by J. Bhagwat, 2020. *Arctic and North, 40,* p.10 (https://doi.org/jzbf).

[362] From *Arctic Marine Shipping Assessment 2009 Report* (p.28), by B. Ellis & L. Brigham, 2009, Arctic Council's Protection of the Arctic Marine Environment (PAME) (https://oaarchive.arctic-council.org/handle/11374/54?show=full).

[363] From *NSR Shipping Traffic – Icebreaker support in 2021*, by Northern Sea Route Information Office; Nord University, 2021 (https://arctic-lio.com/nsr-shipping-traffic-icebreaker-support-in-2021/).

The Russian Federation, like Canada, based its assertion that a large area of the NSR is part of its internal waters and thus subject to its sovereignty on historical claims. Be that as it may, in 2012, Article 5.1. of the *Merchant Shipping Code of the Russian Federation*, defined the NSR as a "water area adjoining the northern coast of the Russian Federation, including internal sea waters, territorial sea, contiguous zone and EEZ of the Russian Federation". [364] However, it should also be considered that a part of the NSR is located on the high seas, and thus any references of the Russian legislation to historic titles over these waters that pass through the high seas are unacceptable given that Russia has ratified both the 1958 Geneva Convention and 1982 UNCLOS.

Yet, there is still no consensus concerning the legal status of the NSR among various coastal states and scholars, who are in the view that many parts of the Arctic Ocean, including the NSR, shall be used for international navigation or are parts of the high seas where every state is entitled, under UNCLOS, to enjoy the freedom of navigation. So, the exact legal regime governing the NSR is yet to be determined, as the strategic interests over the said area often collide.

In particular, the US has consistently opposed Russia's claims over the NSR, in the same way as in the NWP, and has made several failed efforts to venture into the said waterway without prior Russia's consent. The US insists on its position that the whole body of water and ice pack, as well as the airspace above those waters in the Arctic region (and in the specific case of the Russian Arctic Straits, which constitute the NSR), lying beyond the claimed territories of the Arctic Ocean states, have the status of international straits and hence shall be open to navigation by foreign vessels and aircraft. More specifically, according to the US's position that the Arctic maritime routes are part of the global commons, all the coastal states shall enjoy the "non-suspendable right" of innocent passage and the right of transit passage over those waters, in conformity with Part III UNCLOS. The same approach of the "open-door" policy is adopted by the US for the Antarctic continent. Moreover, the icy waters of the NSR are characterized by a geological bounty, i.e., by underwater minerals, which is a major reason for the conflictual positions over their exact legal regime.

Despite these challenges, there has been a growing interest in using the NSR as a viable alternative to traditional shipping routes offering a wide range of benefits. However, there are also concerns about the potential environmental impacts of increased shipping activity in the Arctic, as well as the risks associated with navigating through icy waters.

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[364] From *The Northern Sea Route: International Law and Russian Regulations* (Briefing Paper No. 4/2020, p. 2), by M. Okochi, 2020, European Institute for Asian Studies (EIAS). (https://eias.org/publications/briefing-paper/the-northern-sea-route-international-law-and-russian-regulations/).

6.4. Sino-Russian Cooperation in the NSR

The political instability in the commercial lanes along the Persian Gulf and the Middle East seems to encourage countries of Northeast Asia, mainly China, to cooperate with Russia in the development of the NSR. As further analyzed in the relevant section, China has a keen interest in the Arctic, having established its engagement in the region through its vision for the Polar Silk Road, i.e., the northern part of the Maritime Silk Road (MSR). Part of the Polar Silk Road is the NSR, to which China pursues easier access to fulfill the exponentially increased growth of cross-continental trade. Tellingly, according to data from the NSR Information Office, in 2021, the behemoth Chinese shipping company COSCO concluded 14 transits through the NSR, primarily with cargo vessels. The global trade dynamics and the world trade patterns are altering, given the high ranking of China and other Asian countries, such as India, in the list of the world's largest exporters and importers of shipped goods, the increased shipping traffic, and the growing demand for energy resources.

It is clear that after the invasion of Ukraine, Russia has been isolated from the Arctic Council and from the rest of the Arctic coastal states, which have issued a joint statement against Russian aggression and have paused its participation in the Arctic bodies. So, in the wake of the economic sanctions imposed by the Western states, the worsening prospects for its economy have urged Russia to focus eastwards on the Asia-Pacific region, by enhancing its collaboration with China in the Arctic, among other areas. The Russian Federation does not seem capable of investing in infrastructural development at the moment, which is the main priority to preserve its stronghold in Arctic politics. Here comes China to contribute through its investments and technology, as it already does in other Russian Arctic LNG projects, such as the Yamal Peninsula and the Power of Siberian Pipeline, a pipeline transferring n.g. from Eastern Russia to the Far East and China.

While for China Russia is the principal "Gatekeeper of the Arctic" [365] and a business partner, Russia is skeptical about the increased presence of China in Arctic-related affairs, as the free access of China to the region might restrict Russia's sovereignty in these waters in the years ahead. It is pertinent to note that China in the case of the NSR, diverges from its localized and interest-based approach applied in the South China Sea, employing geoeconomics, rather than rapid militarization in the Arctic region. In particular, when it comes to the NSR, China rejects the Russian argument of "historical and jurisdictional exceptionalism" that uses itself within the

[365] From *Changing contours of Arctic politics and the prospects for cooperation between Russia and China*, by M. Rehman, 2022, The Arctic Institute (https://www.thearcticinstitute.org/changing-contours-arctic-politics-prospects-cooperation-russia-china/).

nine-dash line, in contrast to the 2016 Ruling of the South China Sea Arbitral Tribunal, defending the international legal architecture and the freedom of navigation. [366]

So, it remains to be seen how the progress of the Russo-Ukrainian war will enhance the Sino-Russian cooperation in the Arctic or will be the catalyst for their disengagement.

6.5. Transit fees

The opening of new Trans-Arctic routes to international navigation and the outcome of the long-standing debates over the legal status of the NWP and the NSR respectively may have enormous financial benefits for the economies of the two neighboring coastal states – Russia and Canada – as they impose or are likely to impose transit fees for the entrance into those waters. Levying fees on the usage of the passages is likely to reduce the shipping traffic, and provide opportunities for investments in research, while at the same time generating profits for the country, and aiding local communities and Indigenous people who are highly affected by human activity. The financial gains to a government incurred by the charge of fees for vessels trying to traverse international waterways that pass through its territory are illustrated in the case of the Suez Canal, with the Egyptian government long being largely dependent on the revenue drawn from the Canal.

Nevertheless, providing that the legal regime of these passages is determined by the ICJ to be that of international waters not subject to any national jurisdiction, then in conformity to UNCLOS the charging of any transit fees is prohibited. On the other hand, though, taking into account that the Arctic waters encompass, inter alia, areas of the territorial seas, and in conformity with Article 26 UNCLOS, whereas levying fees upon foreign ships for traversing a coastal state's territorial sea is prohibited under the said provision, imposing transit fees to foreign ships plying through territorial waters where "specific services are rendered to the ships" is allowed. [367]

The salient issue here is whether time and fuel savings ultimately hold down the cost of the journey or the stringent standards that must be met for this kind of journey, as well as the high traffic fees increase the cost, rather than reduce it. The construction cost of the ice class vessels to be seaworthy in the harsh and uncertain Arctic summer conditions exceeds that of a

[366] From *Why the Arctic is not the 'next' South China Sea*, by E. Buchanan & B. Strating, 2020, War on the Rocks (https://warontherocks.com/2020/11/why-the-arctic-is-not-the-next-south-china-sea/).

[367] LOSC, Article 26.

conventional commercial ship by about 30%. Interestingly, the construction cost of the icebreakers can reach even $1 billion. [368]

In the majority of instances, for the ships to venture into the NSR as well as the Suez Canal, are subject to the transit fee obligation. To understand the difference in the transit fees in these two sea lanes, the transit fee to navigate into the Suez Canal is estimated at around $51.000, depending on the ship's status and size. [369] On the other hand, the transit fee to ply through the NSR water area was calculated at around $40 per ton of container cargo, as of 2009 [370], encompassing, among others, icebreaker escort, pilotage, and provision of weather forecasts, provided by the FSUE "Atomflot" (i.e., a subsidiary of ROSATOM for the operation and maintenance of the Russian nuclear-powered icebreakers). Nonetheless, it should be mentioned that the icebreaker fees through the NSR are subject to negotiations, as there is no unified policy system for the transit fees to date. The Russian authorities by charging the vessels so high seek to fund the services provided, the preservation of the marine ecosystem, and the maintenance of the Passage. That is why the traffic fee in the NSR from the '90s until the first decade of the '2000s was calculated to be double the required for the passage through the Suez Canal, depending not only on the vessel's particular features but also on the navigational area. For the NWP, there is no fee system imposed by the Canadian government, at least for the time being.

However, the demand for transit through the Passage and thus, the competitiveness of the NSR have fallen due to the exorbitant fee rates. To this end, in recent years, Russian authorities have sought to reduce their icebreaker fees to increase the shipping traffic through the passages and consequently make the transit financially sustainable for shipping companies. It is trite that the lower fee rates render the usage of the passages more affordable for shipowners and diminish the likelihood of legal disputes despite varying fee rates for different vessels, cargo, etc.

Moreover, the insurance premiums of ice-class ships are higher than those of conventional ships, as the trans-Arctic journeys entail high levels of risk. It is estimated that with the technological development and the enhancement of knowledge about special sailing and harsh climatic conditions in the Arctic region along with the increasing ice thaw, and the subsequent openness of seas, the insurance cost will not be a deterrent for the shipowners in the future.

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[368] From "Η κοινωνικοοικονομική και περιβαλλοντική βιωσιμότητα του Northern Sea Route – Σύγκριση με το Σουέζ [The socioeconomic and environmental sustainability of the Northern Sea Route-Comparison with the Suez Canal]" (Master thesis, University of Piraeus, Greece), by M. Karakosta, 2016, p.21 (https://dione.lib.unipi.gr/xmlui/handle/unipi/9569).

[369] From *Arctic Shipping Routes - Costs and Fees*, by K. M. Eger, 2010, ARCTIS (http://www.arctis-search.com/Arctic+Shipping+Routes+-+Costs+and+Fees).

[370] *Ibid.*

6.6. Article 234 of UNCLOS

Under Article 234 UNCLOS (commonly known as the ice law), deviation from the international guidelines and principles of environmental protection in ice-covered areas seems to be feasible. In the said areas, the harsh and remote conditions and the vulnerable Arctic landscape require establishing special legal regimes and adopting more stringent protective measures and regulations to prevent accidents, keep fleets safe, and preserve the marine environment. Thus, Article 234 UNCLOS grants coastal states "*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 EEZ*" [371], in areas covered by ice for the half of the year or more and where the ice constitutes a significant-impediment or entails risk for navigation. The said laws and regulations shall have due regard to navigation, protecting and preserving the marine environment based on the best available scientific evidence. [372] This regulatory privilege includes the waters through which the NSR and the NWP pass, and is exercised by both Canada and the Russian Federation.

This provision was proposed by Canada during UNCLOS III and involves particularly the Arctic region, which is the core of the present discussion and over which there is no legal regime for environmental protection, similar to that of the Antarctic (*The Protocol on Environmental Protection* that replaced the minerals regime). The Antarctic Environmental Protocol, drawn up in 1991, banned mining operations in the region, providing, though, the possibility of its revision in 2048 [373] , and regarded it as a place of peace focused on scientific research rather than on military activities. Be that as it may, Article 234 constitutes the only relevant regulation concerning ice-covered waters. However, it is limited in scope as it exclusively concerns the adoption of environmental protection measures within the EEZ of the coastal states concerned. Canada implements the current version of its *Arctic Waters Pollution Prevention Act* (AWPPA), which was originally adopted in 1970, and the *Northern Canada Vessel Traffic Services Zone Regulations* ("NORDREGS") regime which is established to enhance the vessel's safety and safeguard the pristine Arctic marine environment [374], under Article 234. Likewise, Russia adopted, *inter alia*, the *1990 Northern Sea Route Regulations*, and implemented additional regulations, including the icebreaker escort fee regulations, to exert specific control over the

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[371] LOSC, Article 234.

[372] *Ibid.*

[373] See supra note 189, p. 373, and from *Protocol on Environmental Protection to the Antarctic Treaty*, 2014, Secretariat of the Antarctic Treaty, Article 7 (https://documents.ats.aq/keydocs/vol_1/vol1_4_AT_Protocol_on_EP_e.pdf).

[374] From *Article 234 of the United Nations Convention on the Law of the Sea: The Overlooked Linchpin for Achieving Safety and Security in the U. S. Arctic?*, by S. P. Fields, 2013, Harvard National Security Journal, 7, pp. 116-118 (https://harvardnsj.org/wp-content/uploads/2016/02/Fields-PUBLISH.pdf).

NSR. [375] Within this context, special reference shall be made to the *Kiruna Declaration*, signed in 2013 on the occasion of the 8th Ministerial Meeting of the Arctic Council [376], as well as the *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic*, signed also in 2013.

More recently, (i.e., in 2017) the so-called Polar Code (*International Code for Ships Operating in Polar Waters*) has been adopted by the IMO (which obtained observer status in the Arctic Council in 2019) to promote maritime safety in the two polar zones. While there were already some IMO provisions in force that set minimum standards with worldwide applicability, the Polar Code was needed to enhance the safety and security of navigation for the vessels operating in the polar regions, which are prone to encounter environmental and navigational conditions beyond those experienced elsewhere. Therefore, the Polar Code, which was developed in response to the growing interest in maritime shipping routes in the Arctic, offers a broad set of regulations, both mandatory measures and non-binding recommendations, requiring vessels to follow stringent design, construction, equipment, and rescue criteria for the polar areas.

To this end, Article 234 provides an international legal ground both for Canada and the Russian Federation to base their national regulation for the navigation of foreign vessels through these routes. They assert that they are granted the right to exclude foreign vessels from their EEZs if flagged commercial vessels do not abide by national regulations enacted in conformity with the said provision. Moreover, when implementing this normative standard, both coastal states endorse a broad interpretation of the provision and do not limit the spatial scope of their respective regulations to their EEZs only, but they expand it to their territorial waters, imposing requirements relating to, *inter alia*, construction, design, equipment, and manning (CDEM) standards, regardless of whether or not Article 234 technically applies to the territorial sea. [377] The exception provided by Article 24(1) UNCLOS seems to permit the restriction of innocent passage to foreign vessels, "in accordance with the Convention", based on Article 234 [378], which is not accepted by the US, as it supports that under the freedom of the high seas, the innocent/transit passage should not be impeded to foreign vessels. Canada and the Russian Federation dispute the said argument, by citing Article 34 UNCLOS, which clarifies that "*the regime of*

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[375] *Ibid.*, p. 81.

[376] See Kiruna Declaration on the Occasion of the Eighth Ministerial Meeting of the Arctic Council, 2013, (https://oaarchive.arctic-council.org/bitstream/handle/11374/93/MM08_Final_Kiruna_declaration_w_signature.pdf?sequence=1&isAllowed=y).

[377] From "The 'Due Regard' of Article 234 of UNCLOS: Lessons from Regulating Innocent Passage in the Territorial Sea," by J. J. Solski, 2021, *Ocean Development and International Law, 52(4)*, p. 6 (https://doi.org/jtfm).

[378] LOSC, Article 24.

passage…shall not in other respects affect the legal status of the waters forming such straits or the exercise by the States bordering the straits of their sovereignty or jurisdiction over such waters and their air space, bed and subsoil". [379]

Nevertheless, it is argued that the said Article is vague and unclear as far as the wording, spatial scope, and its application by the stakeholders are concerned, and constitutes a matter of contention between the US and the other Arctic coastal states. Therefore, the policies of the two coastal states for the application and interpretation of Article 234 are often criticized, notably by the US, for the requirements of transit fees for icebreaking support, mandatory authorization, and prior notification to venture into those waters, and therefore seem inconsistent with the LoS and the state practice. It also seems that in their interpretation of the said Article, the coastal states contradict the provisions concerning the right of innocent passage and freedom of navigation enshrined in UNCLOS.

Finally, the question that arises is whether the rapid ice melting in the Arctic will imply changes in the national legal regimes applicable to these waters based on Article 234. To answer this question it is expedient to take into consideration that the UNCLOS, and in particular Article 234 which matters here, was adopted regardless of the likelihood of future climate change and its implications, but was based on the unique Arctic environment and the subsequent impediments to navigation. History has shown that Article 234 is applied to all the relevant EEZs unaffected by the shrinking of the ice in the Arctic region, while at the same time the increasingly vulnerable Arctic environment followed by the threats to the safety of navigation, render the preservation of the national Arctic legal regimes based on Article 234 more essential than ever. By interpreting Article 234, it is concluded that a balance between two different regimes should exist, i.e., the freedom of navigation and the implementation of protective measures for the marine environment, as "the end of the national legal regimes based on Article 234, and the acceptance of navigation in the Arctic based on lower common standards could lead to serious, irrevocable consequences for the Arctic environment". [380]

6.7. Conclusion

To take stock, the ice retreat and the subsequent opening of new trade routes raise the potential for geopolitical tensions in the Arctic. The growing shipping activity along the NSR and the NWP has already brought the Arctic states concerned into a scramble over who has control over

[379] LOSC, Article 34(1).

[380] From "A Note on the Application of Article 234 of the Law of the Sea Convention in Light of Climate Change: Views from Russia," by R. Dremliuga. 2017, *Ocean Development and International Law, 48(2)*, p. 133 (https://doi.org/jtfk).

these shipping lanes and which legal regime predominates over them. The legal status of the passages is still much debatable, although the prevailing view of the international community, mainly the US and the EU, is that the vessels navigating through these waters shall be subject to the principle of freedom of navigation and thus regulated by international law including the Polar Code.

Shipping traffic along the NWP and the NSR is likely to experience rapid growth in the coming years, as some parts of the Arctic region are witnessing a loss in multiyear ice and the prospects of long-term economic activity in those areas seem to be enhanced in support of resource extraction activities. It is highly expected that in the long term the Arctic shipping routes, notably the NSR, will represent commercially viable alternatives to traditional shipping lanes and complement the Suez and Panama Canal routes as essential waterways for worldwide trade, providing additional capacity to the growing shipping demand. According to several maritime experts, 2% of global shipping might be diverted to the Arctic region by 2030, with the potential to reach 5% by 2050. [381]

However, it is deemed that due to the unique navigational and economic challenges of operating in the Arctic Ocean, such as the high operational costs, and the potential geopolitical tensions which could lead to the militarization of the region, the expected commercial activity in the region may be impeded. Moreover, the lack of major infrastructure along the passageways (e.g., the lack of ports), reduces opportunities for further development and utilization by international shipping, while exposing the shipowners to higher risks.

On the other hand, if the NSR and the NWP fail to rival the traditional shipping lanes because of the controversies among the coastal states concerned regarding their sovereignty and control over those passages, the shipping companies might focus on the other possible routes across the Arctic Ocean, mainly on the TSR, which involves limited legal uncertainty compared to the NSR and the NWP, as it lies outside the national jurisdiction of the coastal states. In particular, albeit it is closer to the NSR, it is subject to UNCLOS and its high seas regulations. [382]

So, it remains to be seen whether these routes will develop into “Golden Waterways” with the potential to transform commercial shipping in the 21st century or will remain regional and seasonal trade routes. Yet, navigation in the Arctic region may also be impacted by the coastal state’s expansion of their ECSs claims based upon recommendations of the CLCS and the consequent extension of their sovereign rights over these water areas, as analyzed in the previous Chapter. By this means, the Arctic Ocean’s seabed would be divided into larger areas that fall

[381] From *The future of the Northern Sea Route - a "Golden Waterway" or a Niche Trade Route*, by M. Humpert, 2022, The Arctic Institute (https://www.thearcticinstitute.org/future-northern-sea-route-golden-waterway-niche/).

[382] Humpert & Raspotnik, p. 288.

within the national jurisdiction of the Arctic coastal states and a smaller percentage of the Area regulated by the ISA. Even if the completion of the establishment of the outer limits of the coastal state's national jurisdiction and the deep sea mining activities, i.e., hydrocarbon resource exploitation and extraction on maritime areas beyond 200 nm, seems a rather ambitious scenario for the years to come, potential installations on recognized commercial trade routes, in order not to impede navigation, would need to be installed in conformity with UNCLOS and its relevant Articles (i.e., Articles 80 & 147). [383]

[383] *Ibid.*, p. 290.

Conclusions

To take stock of all the above, the Arctic environment has witnessed unprecedented changes over the last decade(s). Although scientists do not converge regarding the prediction of the polar ice cap melting rate, there is a consensus that by the end of this century, the Arctic region will likely experience much less multiyear ice. Thus, it is apparent that due to global warming, several issues have emerged relating to sea routes and natural resource exploitation directly affecting the coastal states with large stakes in the Arctic. In terms of navigation, a prolonged shipping season has started to offer new shortcuts for vessels and allow increased traffic, with Canada and the US already disputing navigation rights in the NWP and Russia and the US in the NSR.

The prospect of an ice-free Arctic Ocean with several polar entryways has started to revolutionize maritime affairs, drastically reducing the length of existing journeys to Asia while converting the Arctic from an inland ocean into a thoroughfare for commerce and resource extraction endeavors, in the same way as with the opening the Suez (1869) and Panama Canal (1914). Interestingly, several scholars have used the analogy of the Mediterranean Sea to convey a view of the Arctic Ocean ("polar Mediterranean") as both a transit zone and a confrontational space. The said analogy stems from the fact that the great-power race that took place in the Mediterranean Sea for many centuries and continues to seethe has, in some respect, re-emerged in another region of the world, the Arctic Ocean.

The economic benefits of exploiting the Arctic's natural wealth must be balanced against the need to protect the region's unique environment and the rights and interests of indigenous communities who have lived in the Arctic for thousands of years. A sustainable and responsible approach to resource development in the Arctic will be crucial to ensuring the long-term viability of the region's natural wealth.

The High North is increasingly becoming a more critical part of the foreign policy agendas of the Arctic Five, whose Arctic Policies are, for the most part, predicated on the assumption that they will be able to unearth further natural resource exploitation potential in the years ahead and may mark a shift from cooperation frameworks to a militarized circumpolar approach, led by the resurgent imperial mindset of the Russian Federation, which can hurt the interests of the other polar states.

On December 8, 2022, the 40th anniversary of the adoption and opening for signature of the UNCLOS, often described as a "Constitution for the Oceans", was commemorated. As mentioned throughout the thesis, this landmark regime instrument, presently binding for 168

member states, has a universal character, both customary and constitutional, as the legal framework within which all activities in the oceans and seas must be carried out by regulating the rights and duties of the coastal states and third states concerning maritime areas throughout the world. It also governs maritime claims and defines the rules and principles for delineating and establishing maritime boundaries and the subsequent exploitation of natural resources beneath the maritime areas within and beyond national jurisdiction.

On this basis, the LOSC provides the fundamental legal framework for everything that takes place in the Central Arctic Ocean, which has been characterized by a series of submissions to the CLCS, with the Arctic states vying for more control over the region. The Arctic governments are lured by the prospect of an Arctic energy bonanza, notwithstanding that several disputed areas under the Arctic seabed may not hold remarkable resource riches worth creating a quarrel between the coastal states. Hence, the process of lodging submissions with the CLCS to establish the outer limits of the ECS, based on Article 76(8), albeit time-consuming and relatively expensive, has both sovereign-resource and nationalistic character.

Nonetheless, taking into consideration the agreements that have been concluded between the Arctic states through diplomatic negotiations, it is observed that the Arctic "experience" can be described by substantial scientific and legal cooperation, ranging from managing shared fish stocks to joint development projects regarding natural resources, and not by outright conflict over who owns what, and where. The majority of the maritime boundaries that were pending in the region have been settled or are about to be settled in the short term, contrary to the general trend that dominates across the globe.

Of course, the Arctic is not immune from the current global crisis and, in the years ahead, the devastating effects of climate change and the increasing trend for nationalistic approaches may heat up the Arctic scramble. But yet, the likelihood that the disputed claims spill over into outright conflict is remote given that the Arctic coastal states and their respective governments bear in mind that maritime affairs in the said region can be dealt with only multilaterally and in cooperation with the Russian Federation. To this end, it remains to be seen whether the "realist" visions of power-seeking international behavior emerge as dominant or whether the Arctic states will retain their cooperative models, which were well established through the Arctic Council.

Indeed, the overlapping claims of CS and ECS rights in the Central Arctic Ocean have largely been resolved through negotiating proceedings between the states concerned after the receipt and acceptance of the recommendations issued by the CLCS with respect to the areas contained in the respective submissions. As each coastal state has a natural prolongation of their territories seaward into the Arctic Ocean, delimiting their maritime borders will set the limits of their sovereign rights. Existing or emerging overlapping areas between Canada, Denmark (on behalf

of Greenland), and the Russian Federation, are likely to be settled likewise, i.e., through bilateral or trilateral negotiations over the delimitation of their extended CSs.

What can be observed from the Arctic cases is that they have used quite innovative practices in their maritime boundary-making proceedings, such as the provisions followed during the settlement of the Hans Island dispute as well as provisions allowing for the boundary lines to change in light of more accurate surveys and additional scientific data of boundary arrangements concerning the creation of "Special Areas". Such creative practices are not based on any uniform Arctic circumstances, but to the contrary, each maritime delimitation dispute is resolved as a distinct and unique case.

Another moot point that arises from the maritime boundary delimitation process of the CS in areas beyond 200 nm is whether the coastal states will follow the same delimitation methods as that for delimitation within 200 nm limits. It is trite to mention that the final objective in a delimitation process is to reach an equitable solution, with the choice of the delimitation method being at the discretion of the coastal states. Thus, albeit the sector-based method has been widely used for maritime delimitation in the Arctic region in the past, the Arctic coastal states are free to decide the delimitation method which is more favorable to each delimitation case. Be that as it may, the delimitation of the ECSs in the Arctic Ocean, being critical for the Arctic Five, is likely to have implications for the international community as a whole and the regional governance involving Arctic and non-Arctic actors.

Closing this thesis, it would be noteworthy to cite the words of Philip Allott, Emeritus Professor of International Public Law at the University of Cambridge, answering in the affirmative whether the UNCLOS as a "Constitution for the Oceans" facilitates transformational and/or incremental change. In particular, in 1992, he stated the following:

> "*The Convention is a slow-motion metamorphosis…In the 1982 Convention, a particular structure of an international social organization is re-forming itself, undergoing a process of structure metamorphosis. It is a half-formed new structural uniqueness, full of painful ambiguities and exciting possibilities, full of the "inharmonious" harmony that is fitted for the growth of life."* [384]

On this basis, it has been argued that the UNCLOS has not facilitated a "metamorphosis" of the LoS or at least a "metamorphosis" capable of addressing the challenges of the next 40 years. To respond to future challenges of the Anthropocene (the new Epoch after the Holocene that began around 1950, with both ideological and scientific development), it shall be recognized the need

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[384] From "Mare Nostrum: A New International Law of the Sea", by P. Allott, 1922, *American Journal of International Law*, *86(4)*, pp. 764-787 (https://doi.org/j26v).

to reimagine the LoS and the changes in the modern LoS shall be transformational rather than merely incremental.

Appendix 1

Submissions of the Arctic coastal states, through the Secretary-General of the UN, to the CLCS, pursuant to Article 76, para. 8, of the UNCLOS of 10 December 1982

Submission by [State]	Date of Submission	Sub-commission established	Recommendations adopted on (for summaries of the recommendations follow the link to the respective submission page)
Russian Federation	20 December 2001	See CLCS/32	27 June 2002 See CLCS/34
Russian Federation-partial revised Submission in respect of the Arctic Ocean	3 August 2015	See CLCS/93	6 February 2023
Russian Federation-addendum to the partial revised Submission of 2015 in respect of the central part of the Arctic Ocean	21 March 2021		6 February 2023
Russian Federation-partial revised Submission in respect of the southeastern part of the Eurasian Basin in the Arctic Ocean	14 February 2023		
Norway - in the North East Atlantic and the Arctic	27 November 2006	See CLCS/54	27 March 2009 See CLCS/62
Norway - in respect of Bouvetøya and Dronning Maud Land	4 May 2009	See CLCS/80	8 February 2019 See CLCS/108
Denmark - in the area north of the Faroe Islands	29 April 2009	See CLCS/76	11 March 2014 See CLCS/83
Denmark - Faroe-Rockall Plateau Region	2 December 2010		
Denmark - in respect of the Southern Continental Shelf of Greenland	14 June 2012		
Denmark - in respect of the North-Eastern Continental Shelf of Greenland	26 November 2013		
Denmark - in respect of the Northern Continental Shelf of Greenland	15 December 2014		
Canada - in respect of the Atlantic Ocean	6 December 2013		
Canada - in respect of the Arctic Ocean	23 May 2019		
Canada - addendum to the partial Submission regarding the Arctic Ocean	22 December 2022		

Source: Division for Ocean Affairs and the Law of the Sea

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