

SUBMARINE CABLES IN THE ARCTIC: AN ASSESSMENT OF THE LEGAL FRAMEWORK

Anjali Sugadev (Independent researcher)
Email: anjusuhadev@gmail.com

Independent researcher, No.8, Sastha Illam, 1st Main Road, Baby Nagar, Velachery, Chennai – 600042, India.

Abstract: The 21st century is often called the “century of the Arctic”. Due to melting of sea ice, the Arctic has been a source of continuous development in various fields like shipping, oil and gas explorations and so on. One such activity that has begun to be experimented is the laying of submarine cables, passing through the polar ice as an alternative route to its conventional counterpart around the Mediterranean or Cape Horn connecting Asia, North America and Europe. Against this background, the paper will look closely into the cable regime under the United Nations Convention on the Law of the Sea in the context of the Arctic region (including the exception clause under Article 234 for ice-covered areas) and relevant international and area-specific legal instruments governing the Arctic. The interplay between these instruments and the unilateral national regulations in the Arctic along with the laws governing the potential effects of cable laying and repairing on the sensitive marine ecosystems of the Arctic will be scrutinized. The study will prove useful for companies planning to develop an arctic route, for policy-makers, lawyers and students.

1. INTRODUCTION

*The wrecks dissolve above us; their dust
drops down from afar—
Down to the dark, to the utter dark, where the
blind white sea-snakes are.
There is no sound, no echo of sound, in the
deserts of the deep,
Or the great grey level plains of ooze where
the shell-burred cables creep...
Hush! Men talk to-day o'er the waste of the
ultimate slime,
And a new Word runs between: whispering,
'Let us be one!'*

- Rudyard Kipling
The Deep Sea Cables, 1896

Back in the 19th century, the famous poet, Rudyard Kipling perceived undersea cables in literature as a unifying force (the line ‘*Let us be one!*’) that connects people across the globe. Let’s fast forward to the 21st century and this force is precisely the motivation behind developing digital connectivity in the

High North, which also resonates in the policies of many polar States.

Climate change has created new promises to the cable industry, by unravelling untapped routes and unprecedented uses. Along with increasing physical connectivity, by means of polar shipping routes, it has also opened up virtual connectivity. These conditions have attracted the industry to explore trans-Arctic routes to lay cables in the seabed of such ice-covered region, ultimately connecting continents by bypassing the conventional long paths around the world’s south.

Cable channels in the Arctic have already begun to be experimented by projects like Quintillion and by the upcoming planned routes like Eastern Arctic Undersea Fibre Optic Network (EAUFON), Russian Optical Trans-Arctic Cable System (ROTACS), Arctic Connect and Arctic Fibre (refer Figure 1).

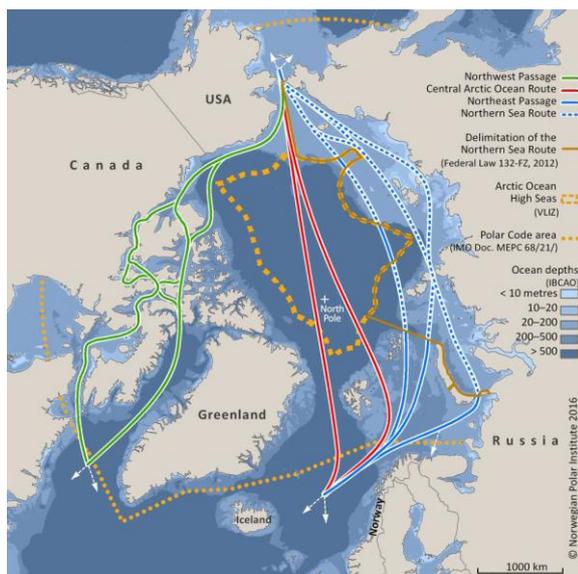


Figure 1: Arctic routes of ship navigation forming potential routes for cables also.

While the technical nitty-gritty is being taken care of, thanks to scientific developments, there are legal issues that need attention. This article will shed light upon the gamut of laws dealing with submarine cables in the Arctic, including the international legal framework, other area-based agreements and national regulations that unilaterally extend their application in this region.

2. INTERNATIONAL LAW

The 1982 United Nations Convention on the Law of the Sea (LOSC) is the framework convention that governs activities in the world's oceans. According to this convention, in the territorial sea (up to 12 nautical miles from the coastline), the coastal State has sovereignty, thereby having the authority to pass laws regulating cable activity, but without impeding the right of innocent passage of other ships. However, in the exclusive economic zone (EEZ) (up to 200 nautical miles from the coastline), the LOSC expressly recognizes laying of submarine cables as a freedom of the high seas and other activities associated with cables (like repairing) as internationally lawful uses of the sea. But this right comes with a caveat. 'Due regard' shall be paid to the rights and duties of the coastal State in

this zone, for example, to offshore oil platforms installed by the coastal State.

LOSC further consolidates the freedom to lay submarine cables on the continental shelf (the seabed and subsoil to the extent as defined under Article 76, LOSC). Coastal States are not allowed to disturb the laying of cables except for their right to take 'reasonable measures' for the exploration of the shelf and exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines. What yardstick has to be used to determine reasonableness is not clear. Part XII dealing with protection and preservation of the marine environment also applies to cable operations.

In the high seas, beyond the exclusive economic zone, all States enjoy the freedom to lay submarine cables, but subject to Part VI of LOSC. Part VI deals with continental shelf that might in certain cases extend beyond 200 nautical miles into an outer continental shelf.

Article 234: an unsolved mystery

LOSC provides the legal regime for cables (as discussed above) and a specific regime – a *lex specialis* – only for the ice-covered parts of the ocean, in the form of Article 234. For the benefit of understanding the international law governing cables in the Arctic, it is important that the two regimes be analysed and the intersection between them explored.

Arctic environment inhabits fragile ecosystems, very different from the rest of the world. Vulnerability of this environment and obstacles to navigation calls for such unique treatment.

Article 234 is set out below –

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from

vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.

Being a special law for ice-covered Polar Regions, it overrides the operative effect of any other generic provision, especially Article 211 of LOSC (Part XII) that prescribes internationally accepted standards to be adopted by coastal States for prevention, reduction and control of pollution from vessels. This implies that Article 234 allows coastal States to prescribe standards higher than those that are globally accepted, which is a significant deviation from the general rule. Moreover, it is unique also in the sense that contrary to flag State control, coastal States assume prescriptive and enforcement jurisdiction for the sake of environmental protection.

The application of this provision to cables is the vital question for discussion. Under this article, the coastal State is allowed to pass regulations only for the prevention, reduction and control of marine pollution 'from vessels' which refers to vessel-source pollution and certainly applies to cables during their natural course of cable laying, repairing or route surveys. However, it can be argued that the remotely operated vehicles that work on the seabed for burying the cable is not part of the vessel, and is questionable whether the disturbance caused by it to the ocean floor is also addressed under this provision. Keeping in mind the intention of the drafters of LOSC and the duty to protect the marine

environment, it leads one to the conclusion that even such acts would be covered under this special regime.

Further, cables cause negligible and temporary disturbance to the seabed (limited to the location where the cable is laid) and is not likely to cause 'major harm to or irreversible disturbance of the ecological balance'. What constitutes 'most of the year' is yet another dubious text. Notwithstanding the leeway provided in this provision, the coastal State is obliged to pay 'due regard' to navigation and environmental protection based on 'the best available scientific evidence.'

Given these ambiguities, Article 234 is obscure in its temporal, spatial and substantive scope and leaves much room for interpretation. It forms the basis for coastal States to adopt unilateral measures through their domestic laws. Article 234 has been the backbone behind excessive national regulations leading to an almost 'creeping jurisdiction' despite much dissatisfaction expressed by other States. Moreover, these States in their application of Article 234 may refute other provisions of the convention regarding the rights to innocent passage and freedom of navigation for foreign vessels.

3. UNILATERAL APPLICATION OF NATIONAL LAWS

Two polar States, Canada and Russia, claim that Article 234 has given legal validity for enacting national prescriptive norms with respect to ships operating in the Arctic. In fact, these domestic regulations existed even before the commencement of negotiations leading to the convention. The following paragraphs give a glimpse into these rules that apply to navigation of foreign vessels.

Canada

Canada claims that it has functional jurisdiction over the Northwest Passage (NWP), one of the major shipping routes in

the Arctic. However, it is considered by most experts in the legal fraternity that it is merely a guise for treating the area as its internal waters and exercising full sovereignty over the area, therefore allowing them to decide who may enter and under what conditions. In fact, Canada backed the formulation of this legal regime during LOSC negotiations thereby creating the framework for Article 234.

Canadian action sprung as a reaction to the potential harm that emerged to the Arctic marine environment after SS Manhattan's maiden voyage in 1969. As a consequence, Canada passed the Arctic Waters Pollution Prevention Act in 1970 declaring a special status to these waters, that is, a 100-mile pollution prevention zone where strict requirements relating to construction, navigational aids, pilotage, and enforcement measures were applied. Other countries like the United States condemn such status and call these passages straits of international navigation, where all ships may transit as a matter of right.

Cable vessels are bound to comply with the overreaching laws of Canada. In addition to the general cable license regulations that are applicable to cables operating in any other part of Canada, these area-specific laws ought to be complied with for laying cables bordering the Arctic provinces.

Canada has also made ship reporting system mandatory under Northern Canada Vessel Traffic Services Zone Regulations (NORDREG), as amended in 2010. It is now applicable to not just Canada's EEZ but also to Canada's Arctic archipelago, including the seven routes of Northwest passage. It means that all ships seeking to navigate through Canadian Arctic waters are duty-bound to inform the Canadian government every time they enter, pass or exit. A traffic clearance is required prior to commencing any manoeuvre relating to the laying, picking up and servicing of submarine cables. Reports

have to be submitted to the Marine Communications and Traffic Services centres of the Canadian Coast Guard before and after the voyage, setting out detailed information and description of intended manoeuvre.

Russia

Russia considers the Northern Sea Route (NSR) a historically developed national transport communication of the Russian Federation. As early as 1971, the then Soviet Union enacted the base legislation with prescribed requirements for navigation in the NSR to ensure compliance by vessels that traversed through the Russian Arctic Waters.

A federal public agency has been established for carrying out the administration of shipping in the NSR. This agency issues permits for ships undertaking a voyage in the Russian Arctic, subject to the performance of requirements concerning safety of navigation and protection of marine environment against pollution from vessels. The legislation provides that the legal ground for granting permits has been established by international treaties of the Russian Federation (referring implicitly to Article 234, LOSC), legislation of the Russian Federation and shipping regulations in the NSR.

Apart from permits, Russia's 2013 Rules of Navigation exerts its coastal State jurisdiction by collection of fees for monopolized icebreaker assistance (not used for cables as they operate during the Arctic summer) and ice pilotage, prior authorization, mandatory notification, detailed reporting obligation and enforcement for non-compliance. While Article 234 allows stricter measures only for the EEZ, Russian national law expands its application even to territorial sea, thereby impeding right to innocent passage.

Furthermore, Russian legislation is silent regarding some waters of NSR falling in the

Arctic high seas pockets. LOSC ensures the traditional freedom of the high seas, including the freedom to lay submarine cables in the high seas. However, there seems to be a conflict on this issue since NSR is claimed to be a national waterway of Russia.

With several cable projects in the pipeline in the Russian Arctic areas, this route is expected to become popular soon. Creation of modern information and telecommunications infrastructure has found its place in the Russian Federation Strategy for the Development of the Arctic Zone up to 2020. The Belt and Road Initiative of China has also sparked Chinese interest in the Arctic, supported by Finland and Russia. As a result, the cable network ROTACS is planned to be laid in NSR connecting London and Tokyo, with branches to Norway, Finland, Russia and China along the way.

4. IMO CONVENTIONS

The International Code for Ships Operating in Polar Waters 2017, or shortly the Polar Code or the Code, adopted by the International Maritime Organisation (IMO) is an area-specific law that aims to provide sufficient framework for safety and pollution prevention in polar waters through additional regulations to the instruments already in force, International Convention for Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL). The Code adopts risk-based approach and stipulates mandatory requirements to be complied with by all ships, including cable vessels.

The Polar Code supports the licensing of vessels for navigation in Arctic waters (following the idea specified in the Article 234). The Code distinguishes vessels operating in this region into three categories, A, B, and C (depending on ice-class) and introduces the issuance of Polar Ship Certificate for such vessels, granted after

verification of documents and inspection of the ship.

An innovative mechanism adopted by the Code is that both Arctic States and flag States are permitted to issue this certificate. However, this step causes concerns relating to the ignorance and inexperience of flag States on the technical requirements demanded by the Arctic climate.

Under this Code, vessels restricted in their ability to manoeuvre, which includes a cableship when conducting cable operations, face reporting obligations when navigating the Barents Sea area.

As a measure of protection to the polar environment, the Code mandates collecting of garbage after the vessel's operations in the Arctic waters. Waste materials like stones or gravel that emanate during the process of burying a cable in the trench have to be disposed outside the Arctic. Measures are also to be taken to minimize the risk of invasive aquatic species through ships' ballast water and biofouling.

5. SUBMARINE CABLES IN DISPUTED MARITIME WATERS

Most Arctic States have entered into mutual bilateral agreements for demarcating their national limits in the Arctic waters – examples are US-Russia in the Bering Sea, Norway-Russia in the Barents Sea. However, some Arctic States have not agreed on their maritime boundaries, like Canada and the United States in the Beaufort Sea and northward. Conducting cable activities at such contentious areas could be inherently challenging.

In such situations, each contesting State would be keen to assert their claim even stronger for fear of being misunderstood as acting in acquiescence if they remain silent. Hence, coastal states with overlapping

marine areas perceive cables that traverse through them as a good opportunity to reinforce their jurisdictional claims against the other claimant State. Experts suggest that in such cases, notification be given to all the concerned States to avoid any hurdles.

6. CONCLUDING REMARKS

One difference between a shipping vessel and cableship is that cable projects are currently being undertaken in association with respective governments (federal or provincial). Hence, it is less likely that cableships in pursuit of these government's social policy (to increase digital connectivity among its remote provinces) would face permitting harassments for operating in their maritime zones. Even cable-laying over disputed maritime areas will be feasible when two or more conflicting States collaborate in cable networks for the common good of their economies. However, it may be noted that future projects in which Russia or Canada do not participate as starting or terminating ends of the cable system, but the cables merely transit their Arctic waters, it is expected that such projects might suffer from unilateral enforcement of their domestic laws. However, this is less likely to occur given the fact that Russia and Canada are the largest Arctic States and no cable owner would rationally want to bypass them.

With escalated use of the Arctic region, new and unexpected challenges to the environment might occur. Due to the short window of conducive climatic conditions, the process of laying a cable on the seabed of the Arctic Ocean may become uninterrupted, thereby gradually increasing the stress on the benthic environment, also affecting the life of dependent indigenous population. On the other hand, it cannot be denied that, over time, there are possibilities that cables become part of the marine habitat, like artificial reefs.

It is yet worrying to know that scientific forecasts show melting ice to increase the vulnerability of the Arctic region. Therefore, it is always beneficial to operate in this area with a precautionary approach, to avoid accidents or collisions in the danger of drifting ice.

Regional multilateral organisations like the Arctic Council must take cognizance of the growing interests of the cable industry and governments in the Polar North. For smooth and coherent functioning of cable networks, concerted efforts by the circumpolar States to develop uniform guidelines and best practices specific to cables (like it exists for offshore oil and gas operations in the Arctic), is *sine qua non*. Mutual support and regional cooperation may reap long-term benefits for the industry and States alike.

Let the roots of fibre-optics unfurl in the poles sans compromising the ecological health of its virgin waters!



Figure 2: A graphic illustration of cables in the High North, being the site of Santa Claus. Copyright: Dynamic Creatives.

7. REFERENCES

[1] Rudyard Kipling, 'A Song of the English', first published in the English Illustrated Magazine, May 1893, as one of

the six sub-sectional poems to ‘A Song of the English’.

[2] Elizabeth Riddell-Dixon, *Breaking the Ice: Canada, Sovereignty, and the Arctic Extended Continental Shelf*, 2017.

[3] Daria Shvets, *Experience of Laying Submarine Cables in the Arctic*, Universitat Pompeu Fabra, 2018.

[4] The Federal Law of Shipping on the Water Area of the Northern Sea Route, Russia, available at http://www.nsra.ru/en/ofitsialnaya_informatsiya/zakon_o_smp.html.

[5] Roman Dremluga, *A Note on the Application of Article 234 of the Law of the Sea Convention in Light of Climate Change: Views from Russia*, 2017, Far Eastern Federal University, Vladivostok, Russia.

[6] *The development strategy of the Arctic zone of the Russian Federation*, 2013 available at

<http://www.iecca.ru/en/legislation/strategies/item/99-the-development-strategy-of-the-arctic-zone-of-the-russian-federation>

[7] Natalia Ergina, *The Regulation of International Navigation through the Northern Sea Route*, The Arctic University of Norway, 2014.

[8] Jan Jakub Solski, *Russia’s Coastal State Jurisdiction over the Arctic Northern Sea Route*, PhD Research Fellow, K.G. Jebsen Centre for the Law of the Sea, University of Tromsø—the Arctic University of Norway, Visiting scholar at the Centre for International Law, Singapore, 2017.

[9] *Rules of Navigation in the Water Area of the Northern Sea Route*, 2013 available at http://www.nsra.ru/en/ofitsialnaya_informatsiya/pravila_plavaniya.html.

[10] James Kraska, *Governance of Ice-Covered Areas: Rule Construction in the Arctic Ocean*, *Ocean Development & International Law*, 2014.