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**Submarine Cables – A Critically Important
but Neglected Area of the Law of the Sea**

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The Importance of Submarine Cables

Submarine cables are critical to the world economy. They form the basis of the global telecommunications network, the Internet, E-commerce and the world's financial and security systems. Natural disasters, fishing activities and shipping activities pose a constant threat to submarine cables. It is in the interest of every State to protect submarine cables and to ensure that broken or damaged cables are repaired as quickly as possible. However, despite their crucial role to both the economy and security of all States, many governments lack awareness on the various legal, policy and security issues which arise from the laying, protection and repair of submarine cables.

The legal regime governing submarine cables is set out in the 1982 *United Nations Convention on the Law of the Sea* (UNCLOS). This paper will outline the UNCLOS legal regime, and point out the areas where its provisions are no longer adequate to protect submarine cables. It will also speculate on the reasons why the legal regime governing submarine cables has been neglected, and set out what measures should be taken by States to address the gaps and loopholes in the current legal regime.

Submarine Cables and UNCLOS

The relevance of UNCLOS

The first convention on submarine cables was the 1884 *Convention for the Protection of Submarine Cables*. It was concluded on 14 March 1884 and entered into force on 1 May 1888. Although about 40 States eventually became parties, the only Asian State that is a party is Japan.¹ When the International Law Association and International Law Commission (ILC) reviewed the law of sea in the 1950s, the 1884 Convention was the starting point for their review on submarine cables. Some of its provisions were incorporated into the 1958 *Convention on the Continental Shelf*. However, the ILC decided not to incorporate some of its other provisions.² Therefore, although it had an impact on the development of the international law of the sea

¹ There were 39 parties as of 31 December 1994. M.J. Bowman & D.J. Harris, *Multilateral Treaties: Index and Status* (London: Butterworths, 1984, 8th Cumulative Supplement, 1995).

² Myres S. McDougal and William T. Burke, *The Public Order of the Oceans* (New Haven Press, 1985) at 842-848; Rene-Jean Dupuy & Daniel Vignes, *A Handbook on the New Law of the Sea*, (Martinus Nijoff, 1991) at 978-983.

relating to submarine cables, the provisions in the 1884 Convention that were not incorporated into the 1958 *Convention on the Continental Shelf* cannot be considered as evidence of customary international law.

The legal regime governing submarine cables is that set out in UNCLOS. It has been universally accepted and most of its provisions, including those on the submarine cables, can be considered as the best evidence of the rules of customary international law.

Submarine cables in maritime zones subject to sovereignty

Under UNCLOS, coastal States have sovereignty in the 12 nautical mile belt of sea adjacent to their coast known as the territorial sea³. Their sovereignty extends to the seabed and subsoil below the territorial sea as well as to the air space above it⁴. Therefore, as a matter of principle, coastal States have the right to regulate all activities in their territorial sea, and their laws and regulations apply to activities in their territorial sea.

The sovereignty of a coastal State in its territorial sea is not unlimited. Article 2(3) of UNCLOS provides that the sovereignty of a coastal State over its territorial sea is exercised subject to UNCLOS and other rules of international law. The main limitations on the sovereignty of the coastal State in the territorial sea relate to the passage of ships. Ships of all States have the right of innocent passage through the territorial sea⁵. In addition, if part of the territorial sea consists of a strait used for international navigation, ships of all States have the right of transit passage through such straits⁶.

Foreign ships have the right of innocent passage through the territorial sea, but such passage must be continuous and expeditious⁷, and ships exercising innocent passage must not engage in any activity not having a direct bearing on passage. If a ship engages in the laying, maintenance or repair of submarine cables in the territorial sea, it would not be exercising the right of innocent passage. Therefore, a coastal State has the right to regulate the laying, maintenance and repair of submarine cables within its territorial sea.

Coastal States also have the right to place restrictions on the right of innocent passage of ships in order to protect submarine cables. Article 21(1)(c) expressly

³ Article 3, UNCLOS

⁴ Article 2 (2), UNCLOS

⁵ Article 17, UNCLOS

⁶ Article 45, UNCLOS

⁷ Article 18 (2), UNCLOS

provides that coastal States have the right to adopt laws and regulations restricting the right of innocent passage by ships in order to protect submarine cables.

Article 49 of UNCLOS provides that the sovereignty of an archipelagic State extends to the waters enclosed by its archipelagic baselines, which are referred to as its archipelagic waters. However, such sovereignty is exercised subject to Part IV of UNCLOS. Part IV provides that foreign ships have the right of innocent passage through the archipelagic waters of the archipelagic States⁸, as well as the right of archipelagic sea lanes passage through designated sea lanes or routes normally used for international navigation⁹. The rules on innocent passage through archipelagic waters are the same as those on innocent passage through the territorial sea. Therefore, as a general principle, archipelagic States have the right to regulate the laying, maintenance and repair of submarine cables within their archipelagic waters as well as within their territorial sea. In addition, archipelagic States have the right to regulate ships exercising innocent passage through their archipelagic waters in order to protect submarine cables as provided for in Article 21(1)(c) of UNCLOS.

Article 51 establishes a restriction of the sovereignty of archipelagic States over submarine cables in their archipelagic waters. It provides that an archipelagic State shall respect existing submarine cables laid by other States and passing through its waters without making a landfall. It also provides that an archipelagic State shall permit the maintenance and replacement of such cables upon receiving due notice of their location and the intention to repair or replace them.

Submarine cables in maritime zones not subject to sovereignty

Article 87 of UNCLOS provides that the freedom of the high seas includes the freedom to lay submarine cables. Article 112 provides that all States are entitled to lay submarine cables on the bed of the high seas beyond the continental shelf.

Article 58(1) provides that the freedom to lay submarine cables also applies in the Exclusive Economic Zone (EEZ). It reads as follows (emphasis added):

Article 58. Rights and duties of other States in the exclusive economic zone

1. In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and

⁸ Article 52, UNCLOS

⁹ Article 53, UNCLOS

submarine cables and pipelines, and compatible with the other provisions of this Convention.

The freedom of laying submarine cables also includes the right to maintain and repair such cables. In the EEZ, measures to repair and maintain submarine cables would be internationally lawful uses of the sea related to the freedom of laying submarine cables.

Article 58(3) provides that in exercising their rights and performing their duties under UNCLOS in the EEZ, States shall have due regard to the rights and duties of the coastal State, and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of UNCLOS.

Limits on the freedom to lay submarine cables

The freedom to lay submarine cables on the high seas and in the EEZ is subject to Part VI of UNCLOS on the Continental Shelf. Article 77(1) of UNCLOS provides that the coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources. To exercise its sovereign rights the coastal State would have the jurisdiction necessary to regulate the exploration of the continental shelf and the exploitation of its resources. However, article 78(2) provides that the exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.

Part VI contains only one provision on submarine cables, article 79, which reads as follows:

Article 79. Submarine cables and pipelines on the continental shelf

1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article.
2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal State may not impede the laying or maintenance of such cables or pipelines.
3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal State.
4. Nothing in this Part affects the right of the coastal State to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.

5. When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.

Article 79 requires careful analysis. First, it should be noted that it seems to assume that the right to lay submarine cables includes the right to maintain and repair them. Paragraph 2 refers to the “laying or maintenance” of submarine cables, and paragraph 5 refers to “repairing” existing cables.

Article 79(1) provides that all States are entitled to lay submarine cables on the continental shelf, subject to the provisions of article 79. Thus, the laying, repair and maintenance of submarine cables on the high seas, in the EEZ and on the continental shelf is subject to the provisions in article 79.

Article 79(2) addresses both submarine cables and pipelines, but makes important distinctions between them. It provides that the coastal State may not impede the laying or maintenance of submarine cables and pipelines, subject its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines. The first two types of measures that may be taken by coastal states - measures for the exploration of the continental shelf and measures for the exploitation of its natural resources – apply to both submarine cables and pipelines. However, the third type of measure that may be taken by coastal States – measures for the protection, reduction and control of pollution - applies only to pipelines, not to submarine cables. The coastal State has no right to impose conditions on the laying and maintenance of submarine cables for the protection, reduction and control of pollution. This makes sense in terms of policy, as submarine cables pose no serious threat to the marine environment of the continental shelf, in contrast to pipelines, which can pose a threat because they carry gas and oil.

It is not entirely clear what reasonable measures a coastal State could take for the exploration of its continental shelf and the exploitation of its natural resources which would apply to the laying of submarine cables. However, it would seem reasonable for a coastal State to impose restrictions on the laying of submarine cables in its richest fishing grounds or coral reef areas in its EEZ and to put restrictions on the laying of cables in areas designated for off-shore exploration for oil and gas. Disputes on the application and interpretation of article 79(2) could arise if a company laying a submarine cable is of the view that the laws and regulations of the coastal State restricting their right to lay submarine cables are not reasonable measures.

Article 79(3) draws an important distinction between submarine cables and pipelines. It provides that the delineation of the course for the laying of *pipelines* on the continental shelf is subject to the consent of the coastal State. However, it is clearly implied that the delineation of the course for the laying of *submarine cables* is not subject to the consent of the coastal State. When read together, articles 79(2) and 79(3) seem to provide that the coastal State can take reasonable measures relating to the exploration of its continental shelf and the exploitation of its natural resources which put restrictions on the laying of submarine cables, but such measures may not require that the delineation of the course of a submarine cable on its continental shelf be subject to the consent of the coastal State.

Article 79(4) provides that nothing in article 79 affects the right of the coastal State to establish conditions for submarine cables entering its territory or territorial sea. This provision appears to be a savings clause intended to make clear that the restrictions in article 79 on the right of a coastal State to regulate cables on the continental shelf (where it has sovereign rights but not sovereignty) do not affect the more extensive rights of the coastal State to impose additional conditions on cables which enter its territory or territorial sea (where it has sovereignty). In such case, the additional conditions would apply only to cables within its territory or territorial sea. Although it could be argued that article 79(4) gives coastal States a right to impose additional conditions on cables on its continental shelf if such cables enter its territory or territorial sea, such an interpretation does not seem logical. The fact that a submarine cable lands in a State's territory or passes through its territorial sea is not a sufficient justification for the coastal State imposing measures on the laying of a cable on its continental shelf which would not otherwise be "reasonable measures" under article 79(2).

Article 79(4) also provides that nothing in article 79 affects the jurisdiction of a coastal State over cables constructed or used in connection with the exploration of its continental shelf or the exploitation of its resources or the operations of artificial islands, installations or structures under its jurisdiction. This ensures that if submarine cables are constructed or used in connection with exploration or exploitation of the resources of the continental shelf or EEZ, the coastal State has jurisdiction over them as provided in Parts V and VI of UNCLOS.

Article 79(5) requires States, when laying submarine cables, to have due regard to existing cables or pipelines, and in particular, not to prejudice the possibility of repairing existing cables and pipelines. Article 112 provides that the right to lay cables on the sea bed beyond the continental shelf is also subject to this paragraph.

Right to conduct cable route surveys

Before laying an international submarine cable, the cable route must be planned and a hydrographic survey of the planned route must be undertaken. When planning the cable route between landing points in several States, efforts must be made to minimize conflicts with other uses of the seabed, to minimize risks to natural hazards and man-made hazards, and to minimize the risk to particularly sensitive sea areas. A desk-top study is first undertaken using route planning tools such as GIS databases, route planning software, and web-based interactive imagery. A route survey is then undertaken by a hydrographic vessel on the route proposed in the desk-top study. The route survey is undertaken to identify and avoid obstructions and hazards, determine the cable protection strategies required, etc.

Because the sovereignty of the coastal State extends to its territorial sea and its archipelagic waters, cable route survey ships in these zones would, as a matter of principle, have to comply with the laws and regulations of the coastal State. This is also clear from the following provisions of UNCLOS:

- Article 19(1)(j), which provides that if a foreign ship passing through the territorial sea carries out any “research or survey activities” its passage is deemed to be not innocent;
- Article 52(2), which provides that ships exercising the right of innocent passage through an archipelagic State are subject to the provisions in Part II, section 3, including article 19(1)(j) above;
- Article 40, which provides that during transit passage through a strait used for international navigation, foreign ships, including marine scientific research and hydrographic survey ships, may not carry out any research or survey activities without the prior authorization of the States bordering the straits;
- Article 54, which provides that article 40 applies to ships exercising the right of archipelagic sea lanes passage through an archipelagic State;

In areas not subject to the sovereignty of the coastal State, the situation is more complicated. There are no provisions in UNCLOS governing surveys on the high seas, in the EEZ or on the continental shelf. It can be argued that such surveys are a traditional freedom of the seas. When conducted in the EEZ, a cable route survey is arguably “an internationally lawful use of the sea” related to the freedom to lay submarine cables, as provided in article 58(1) of the UNCLOS.

Part V of UNCLOS contains no provision suggesting that a coastal State has jurisdiction to regulate cable route surveys in its EEZ. Article 56(1)(b) of UNCLOS provides that in the EEZ, the coastal State has

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

- (i) the establishment and use of artificial islands, installations and structures;
- (ii) marine scientific research;
- (iii) the protection and preservation of the marine environment;

In the EEZ a coastal State only has “jurisdiction as provided in the relevant provisions of this Convention”. It has no residual jurisdiction. Therefore, unless there is a provision in UNCLOS providing that a coastal State has jurisdiction over survey activities in its EEZ, or on the continental shelf, it would have no jurisdiction to pass laws and regulations on cable route surveys outside its territorial sea.

This warrants a consideration of the UNCLOS provisions in Part VI on the continental shelf. Part VI does not make a distinction between the rights and jurisdiction of the coastal State. Article 77 provides that the coastal State has sovereign rights for the purpose of exploring the continental shelf itself as well as for the purpose of exploiting its natural resources. This is in contrast to the EEZ, where article 56(1) provides that the sovereign rights for the purpose of exploration in the EEZ are limited to exploration of the natural resources or other economic activities in the zone. The difference seems to suggest that the coastal State has the right to regulate exploration of the continental shelf as part of its sovereign rights over the continental shelf. This is supported by article 78(2), which provides that the exercise of the rights of the coastal State over the continental shelf must not infringe or result in any justifiable interference with other rights and freedoms provided for in UNCLOS. Article 79(2) deals specifically with the laying and maintenance of submarine cables, and provides that subject to its right to take reasonable measures for the exploration of the continental shelf, the coastal State may not impede the laying of submarine cables.

The above provisions suggest that a coastal State has the right to impose reasonable measures for the exploration of the continental shelf and that such measures might include adopting laws and regulations on cable route surveys. It would seem reasonable for the coastal State to adopt regulations to ensure that a cable route survey ship is not engaged in the exploration of the natural resources of the continental shelf.

Some coastal States may also attempt to argue that they have the right to regulate the activities of cable survey ships because cable route surveys are a form of marine scientific research. Article 56 and article 246 of UNCLOS expressly provide that coastal States have the right to regulate and authorize marine scientific research in their EEZ and on their continental shelf, and that such research shall be conducted with the consent of the coastal State. This argument is supported by the fact that there is no definition of marine scientific research in UNCLOS. However, when the provisions on marine scientific research are viewed in the context of UNCLOS as a whole, there is a strong argument that even though there is no definition of marine scientific research in UNCLOS, hydrographic surveys were treated in the Convention as an activity that is distinct from marine scientific research. This position is based on the argument that the provisions in UNCLOS must be viewed in the context of all of the provisions in UNCLOS, especially in the context of provisions which treat the activities as distinct and separate. For example, article 40 reads as follows:

Article 40. Research and survey activities

During transit passage, foreign ships, including marine scientific research and hydrographic survey ships, may not carry out any research or survey activities without the prior authorization of the States bordering straits.

This article makes a very clear distinction between marine scientific research and hydrographic surveys, which implies that the drafters of UNCLOS did not intend to include survey activities as a form of marine scientific research. Article 19(1)(j) is also consistent with this analysis, as it mentions “research or survey activities”, implying that they are separate activities.

In conclusion, the right of coastal States to impose conditions on cable route survey ships in maritime zones subject to their sovereignty is unquestioned. Their right to impose conditions on cable route survey ships is doubtful if they claim that such surveys are a form of marine scientific research. However, they may have a credible argument for arguing that they have a right to regulate such ships as reasonable measures relating to the exploration of the continental shelf under Article 78 and 79. Given that the continental shelf is for all intents and purposes a resource zone, this may give them a legitimate basis for imposing conditions to ensure that the cable route survey ship is not engaging in the exploration of the natural resources of the shelf.

The Protection of Submarine Cables under UNCLOS

UNCLOS provisions on protection of cables outside sovereignty

Articles 113-115 of UNCLOS provide for the protection of submarine cables beneath the high seas. These articles are also applicable in the EEZ because of article 58(2).

Article 113 obligates States to adopt laws and regulations necessary to provide that it is a punishable offence for a ship flying its flag or a person subject to its jurisdiction to wilfully or through culpable negligence break or injure a submarine cable beneath the high seas (or EEZ) in such manner as to be liable to disrupt communications. The provision shall also apply to conduct calculated or likely to result in such breaking or injury. It shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury. Article 113 in effect obligates States to create an offence for the breaking or injury of a submarine by their nationals (including ships flying their flag) in areas outside any State's territorial jurisdiction.

Article 114 covers the situation where in the laying or repairing of a submarine cable, a break or injury is caused to another submarine cable or pipeline. If the owners of the submarine cable which caused the break or injury are subject to its jurisdiction, a State must adopt laws and regulations to provide that the owners shall bear the costs of repairs to the other submarine cable or pipeline.

Article 115 provides for indemnification for losses incurred in avoiding injury to a submarine cable. States have an obligation to adopt laws and regulations to provide that if a ship sacrifices an anchor or fishing gear to avoid injuring a submarine cable, the owner of the cable shall indemnify the owner of the ship for losses they incurred in avoiding injury to the cable.

Settlement of disputes on UNCLOS provisions

Any dispute between States parties on the interpretation or application concerning the provisions of UNCLOS on submarine cables is subject to the compulsory binding dispute settlement procedures in section 2 of Part XV of UNCLOS. This is so as a matter of principle because such disputes do not fall within the exceptions in article 297 or the optional exceptions in article 298. In addition, article 297(1) specifically provides that disputes concerning the interpretation or application of

UNCLOS with regard to the exercise by a coastal State of its sovereign rights and jurisdiction shall be subject to section 2 procedures when there is a dispute relating to the laying of submarine cables or in regard to other internationally lawful uses of the sea as specified in article 58(1).

Therefore, if the flag State of a cable route survey ship wished to challenge the legality of laws and regulations of a coastal State requiring a permit for the conduct of a cable route survey outside its territorial sea, it could do so. Similarly, if a dispute arose between the flag State of a cable ship on whether requirements of the coastal State for permits to lay or repair cables in maritime zones not subject to the sovereignty of the coastal State were consistent with UNCLOS, such a dispute would be subject to the compulsory binding dispute settlement procedures in section 2 of Part XV.

Gaps and Loopholes in Current Legal Regime

Protection of cables in maritime zones subject to sovereignty

UNCLOS has no provisions requiring coastal States to adopt laws and regulations to protect submarine cables within maritime zones subject to their sovereignty. UNCLOS seems to have assumed that coastal States would recognize that they have an interest in protecting submarine cables which land in their territory or which pass through maritime zones under their sovereignty, and that they would adopt laws and regulations to protect submarine cables.

One of the main threats to submarine cables in ports, territorial seas and archipelagic waters is the breaking or damage of cables by anchors. Most ships anchor within port limits. The waters within port limits are usually internal waters, where the sovereignty of the coastal State is unrestricted by passage regimes. In the territorial sea and archipelagic waters, the sovereignty of the coastal State is subject to the regimes of innocent passage, transit passage through straits used for international navigation, and archipelagic sea lanes passage. However, UNCLOS gives coastal States the power to impose restrictions on the right of innocent passage in order to protect submarine cables. Article 21(1)(c) expressly provides that coastal States have the right to adopt laws and regulations restricting the right of innocent passage by ships in order to protect submarine cables. Archipelagic States have a similar right to regulate innocent passage through their archipelagic waters and territorial sea.

The right of coastal and archipelagic States to regulate ships exercising the rights of transit passage and archipelagic sea lanes passage are more restricted.

However, ships exercising the rights of transit passage and archipelagic sea lanes exercise those rights by in major shipping lanes where there are usually no submarine cables. Furthermore, when exercising their rights they cannot stop and anchor except in the cases of *force majeure* or distress. Therefore, they generally pose no threat to submarine cables.

In maritime zones subject to their sovereignty coastal States should protect submarine cables by designating anchorage areas and/or non-anchorage areas and by requiring that cables be buried. They can also establish cable protection zones to limit other activities such as dredging or fishing which may pose a threat to submarine cables¹⁰.

Coastal States also have the power to adopt laws and regulations establishing administrative or criminal penalties for acts which injure or break submarine cables in areas within its sovereignty either intentionally or through negligence. However, the laws and regulations of most States on the protection of submarine cables are inadequate.

Protection of cables in maritime zones outside sovereignty

Articles 113 to 115 of UNCLOS on the protection of submarine cables beneath the high seas, in the EEZ and on the continental shelf are clearly inadequate.

To minimize the threat of fishing activities to submarine cables, coastal States should impose restrictions on fishing activities in areas of their EEZ where there are submarine cables at risk. In addition, coastal States should enact legislation providing for indemnification to fishermen who sacrifice nets or fishing gear in their EEZ in order to prevent damage to submarine cables.

Although ships normally do not anchor in the EEZ, coastal States should also warn the international shipping community of dangers to submarine cables in shallow areas of their EEZ where submarine cables could be damaged by anchoring.

Article 113 obligates States to adopt laws and regulations necessary to provide that it is a punishable offence for a ship flying its flag or a person subject to its jurisdiction to wilfully or through culpable negligence break or injure a submarine cable beneath the high seas (or EEZ). This provision is based on the nationality and flag State principles of jurisdiction, which enable States to extend their criminal laws to acts

¹⁰ See, for example, the Australian Telecommunications and Other Legislation Amendment (Protection of Submarine Cables and Other Measures) Act 2005 which allows for the establishment of cable protection zones.

outside their territorial jurisdiction committed by their nationals or committed on board ships flying their flag. It is inadequate for several reasons. Firstly, most States have not adopted laws or regulations incorporating this provision into their national laws. The practical effect of this is that when a submarine cable beneath high seas or EEZ is broken or damaged by intentional or reckless conduct, in many cases no crime has been committed under any State's laws.

The second and more important reason why article 113 is not adequate is that it does not take into account the threat of terrorism against cables or the importance of submarine cables to all States served by submarine cables, and the need to establish universal jurisdiction over persons who intentionally destroy or damage submarine cables. Submarine telecommunications cables are as vital to the global economy as the infrastructure for airports and maritime navigation. It is in the common interest of all States to make criminal the intentional destruction of submarine cables wherever the act occurs, whatever the nationality of the perpetrators, and whatever their motive or purpose. It is in the common interest of all States to co-operate to ensure that terrorists or other persons who intentionally and wilfully destroy or damage submarine cables, or attempt to do so, are arrested and prosecuted as criminals.

The model which should be followed to deal with this problem is the model employed in the so-called "UN counter-terrorism conventions" such as the 1988 *Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA)*. These conventions require States Parties to make such acts criminal offences under their national law. They require States parties to establish jurisdiction over the offences when the acts take place in their territory, when the acts take place on a ship registered in their State, when their nationals are the offenders, or when the alleged offenders are present in their territory. In addition, if the alleged offenders are present in the territory of a State Party, that State is obliged to take the offenders into custody, and to either extradite them or prosecute them. States Parties are also obligated to provide mutual assistance with respect to any criminal proceedings. These provisions ensure that States Parties cooperate so that persons who commit offences under the conventions are arrested and prosecuted.

Cooperative measures are also necessary to ensure that cables in maritime zones not subject to sovereignty are protected. All States in a region should cooperate to protect cables beneath such waters. Such cooperation should include cooperation by their naval forces to prevent attacks on submarine cables and to arrest persons who commit such acts. States should ensure that their naval and coast guard forces are trained and available to carry out marine operations to protect submarine cables.

States should cooperate to establish working relationships with the cable industry and with the naval forces of other States in order to protect cables. However, all cooperative measures to protect submarine cables should be consistent with UNCLOS and other rules of general international law.

Another issue which is not dealt with in articles 113-115 of UNCLOS is the intentional theft of submarine cables in maritime zones outside of sovereignty. In 2007 Vietnamese fishermen stole 100 kilometres of an international submarine cable in the EEZ of Vietnam, and sold it as scrap. They also took the optical amplifiers which are critical for the operation of cables and replacements had to be manufactured in France. As a result, internet traffic in Vietnam slowed down considerably, and it took 79 days to repair the cable.

Since the criminal laws of many States are territorial, the intentional theft of submarine cables beneath the high seas or EEZ may not be a crime under the criminal law of any State. One way to tackle the problem of the theft of cables beneath the high seas or EEZ is to treat it as piracy under article 101 of UNCLOS. Although the definition of piracy is generally regarded as requiring an attack by one ship against another, a careful reading of article 101 indicates that the theft of submarine cables by the crew of a private ship from the seabed below the high seas or EEZ could constitute piracy. Submarine cables beneath the high seas are “property in a place outside the jurisdiction of any State”. If the intentional stealing of such cables can be considered an “act of depredation”, the elements necessary to satisfy the definition of piracy would be satisfied, as indicated by the underlined words below:

Piracy consists of any of the following acts:

(a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

Therefore, in principle, any State which has legislation making piracy as defined in article 101 of UNCLOS a crime under its national law could treat the theft of submarine cables beneath the high seas or EEZ as piracy. However, the legal advisors in many Governments may be hesitant to apply the UNCLOS piracy

provisions to such situations by authorizing the boarding and arrest of such persons as pirates¹¹.

Given the potential gap in the law concerning the theft of submarine cables, any review of the need for new legislation to protect submarine cables should include provisions requiring States to make the theft of international submarine cables outside the jurisdiction of any State a crime under their national laws.

Why the legal regime governing submarine cables has been neglected

One reason why the legal regime governing submarine cables has been neglected is that there is no agency in the UN system that is responsible for submarine cables. Submarine cables are arguably of interest to the UN Division on Ocean Affairs and Law of the Sea (UNDOALOS), to the International Telecommunications Union (ITU), to the International Maritime Organization (IMO) and to the Fisheries Division of the Food and Agricultural Organization (FAO). However, none of these agencies has assumed the responsibility to review and update the legal regime governing submarine cables.

A second reason why the legal regime governing submarine cables has been neglected is that in many States there is no ministry or agency which has the responsibility for the international law and policy issues relating to submarine cables. Therefore, there has been no systematic review by national Governments of the adequacy of the legal regime governing submarine cables.

A third reason for the neglect lies with the cable industry. Since the advent of broadband they have invested billions in new fibre-optic submarine cables. However, for the most part they have done so by using members of their consortiums or by using shipping agents to obtain the necessary permits and approvals from national Governments. They have cooperated with one another through the International Cable Protection Committee (ICPC). However, States are not members of the ICPC and are not represented at its meetings. Also, the ICPC has no observer status with any of the UN agencies which have an interest in submarine cables.

Conclusions

The provisions on submarine cables in UNCLOS have served the international community adequately for the most part for the quarter century. However, the number of submarine cables has increased dramatically in recent years. In addition,

¹¹ In Article 110 of UNCLOS, a warship is allowed to board a vessel if it believes that there are reasonable grounds for suspecting that it is engaged in piracy.

broadband communications through submarine cables have become critically important to the world economy and to the security of States. Damage to submarine cables in recent years from natural disasters, fishing activities and shipping activities have demonstrated the need for increased cooperation to ensure the protection of submarine cables and for the rapid repair of broken or damaged cables. It has generally been recognized that terrorists pose a threat to international transportation and communications networks, but the potential terrorism threat posed to submarine cables has not been recognized or addressed. Therefore, it can be concluded that the legal regime governing submarine cables has been neglected, and is in need of review. It is hoped that this paper will have made a small contribution to that effort.