

Security of International Submarine Cable Infrastructure: Time to Rethink?

Mick P. Green¹ and Douglas R. Burnett²

International Cable Protection Committee, Ltd.³

Abstract

Today's submarine cables form the backbone of an international network and are of strategic importance to the global economy. This network is designed to be resilient, however, there are threats that can disrupt the activities that we take for granted, such as the internet, telephone, use of ATMs and flight booking. These threats include those that are manmade such as fishing activities, ships anchors and emerging acts of piracy through to natural events such as earthquakes and landslides. The cable owners undertake activities during the planning, implementation and operation to minimize the impact of such threats. However when faults do occur it is important that they are repaired as soon as possible. This paper discusses some of the issues and looks at the role of UNCLOS and government in the repair of cables. It also covers examples where emergency repairs have been delayed due to the requirement for permits and suggests opportunities for improvement.

¹ Chairman, International Cable Protection Committee, Ltd., Head of Subsea CoE, BT, mick.p.green@bt.com *The authors' ICPC PowerPoint presentation may be viewed on the accompanying CD.*

² International Cable Law Advisor, International Cable Protection Committee, Ltd., Partner, Holland & Knight LLP, J.D., University of Denver (1980), B.S., U.S. Naval Academy (1972), douglas.burnett@hklaw.com *The author acknowledges the excellent contribution of Ms. Olivia Maginley from the New York University Law School.*

³ ICPC Ltd, formerly known as in the International Cable Protection Committee, ("ICPC") is an organization of approximately 80 companies and administrations from about 40 nations which own or operate the world's submarine cable networks. The ICPC fosters international cooperation in best engineering and cable protection practices and observance of international law for submarine cables. For more information, see www.iscpc.org

Introduction

As an emerging phenomenon, the legal status of high seas submarine cable depredation is not addressed in historical precedent or other legal literature. Events in March 2007 in Southeast Asia have intensified the need to build a legal response consisting of both preventative and remedial measures for cable owners whose cable experiences depredation or destruction.

Given the relative novelty of the offense, a necessary precondition to enforcement is to situate submarine cable depredation on the high seas⁴ within the existing framework of international maritime regulation. The United Nations Convention on the Law of the Sea (UNCLOS)⁵ offers a comprehensive and widely accepted repository of international maritime obligations.

Submarine cables are vital infrastructure to the global economy and the world's political system. Besides cable owner victim compensation, an evaluation of the difficulties experienced in finding timely and adequate responses by the international community demonstrates that diplomatic work is urgently required to (1) allow rapid intervention in accordance with international law by available naval forces on the high seas to protect submarine cables systems and (2) to allow for repair vessels to exercise internationally recognized rights to repair damaged cables outside of territorial seas without coastal State interference. The urgency of this task is underscored by the fact that over 95% of

⁴ "High seas" here refers to those waters beyond a State's territorial sea. Under UNCLOS, a State's territorial sea cannot exceed 12 nautical miles ("NM"). Within a State's territorial sea, its domestic law would apply to depredation, injury, or piracy directed against submarine cables. An examination of applicable law in Vietnam is beyond the scope of this paper, but it was reported in the press that under Vietnam's Penal Code, articles 138 and 231, theft of a fiber optic cable is punishable by three years in prison or even the death penalty. *VietnamNet Bridge*, "Telecom cable thieves face tough penalties," May 31, 2007. To date there have been no reports of any arrests of either persons or vessels.

⁵ Dec. 10, 1982, 1833 U.N.T.S. 397.

the world's international voice and data traffic, including almost 100% of transoceanic internet traffic, is carried by undersea cables.⁶

Background-the depredations

The TVH (Thailand-Vietnam-Hong Kong system) is a 3,354 km fiber optic submarine cable system which entered service in 1995, and lands in Thailand, Vietnam, and Hong Kong. APCN (Asian Pacific Cable Network) is a 12,083 km fiber optic submarine cable system which entered service in 1997 and lands in Korea, Japan, Taiwan, the Philippines, Hong Kong, Malaysia, Singapore, Thailand, Indonesia, and Australia.

On March 23, 2007, two distinct and widely separated cable faults were detected on the high seas in Southeast Asian waters. It was subsequently determined that at one location, 98 km of cable and one optical amplifier belonging to TVH had been stolen. At the second location, 79 km of cable and another optical amplifier belonging to APCN had been stolen.⁷ Because of the time and distance between the thefts, the two incidents are concluded to have involved multiple vessels.⁸ In the latter incident involving the APCN cable, a vessel was photographed, by a cable repair ship dispatched from its base in Singapore, while the culprit vessel was actively removing cable at the fault location.⁹ The photographed ship was registered in Vietnam.¹⁰ It was

⁶ In contrast, satellites account for less than 5% of international voice and data traffic. The dramatic increase in reliance on fiber optic cables compared to satellites since 1988 can be explained by their high reliability, capacity, security, lack of transmission delay present in satellite traffic, and their significantly lower costs. At the same time, the footprint of cables on the seabed is benign and small, typically the diameter of a beer bottle cap or garden hose.

⁷ Michael Green, International Cable Protection Committee, Presentation at the Oceans Conference on Legal Challenges regarding the Security of International Submarine Cable Infrastructure (Heidelberg, May 2007).

⁸ E-mail from Michael Costin, Global Manager Cable Services, REACH, to Douglas Burnett, Holland & Knight LLP (June 4m 2004, 01:17 EST) (on file with author).

⁹ Green, *supra* note 4.

subsequently reported that at least three Vietnamese vessels were involved in the depredations.

The damages to these systems were substantial. Repairs took over three months. While a repair of a submarine cable from contact with an anchor or fishing gear is not unusual and can be repaired by inserting a small section of spare cable, the amount of cable taken in these cases exhausted the available spares on hand¹¹. Moreover, the loss of optical repeaters, expensive pieces of equipment, required a factory in Europe to manufacture new components. During the time of repairs, some of the traffic affected by the damage would have been rerouted onto other cable systems. Estimates for damages to the two systems exceeds USD 7.2M

But these actions do not take into account the critical loss of resiliency in the cable networks caused by the hostile actions. For example, during the approximate three-month repair period, Vietnam's cable connectivity to the rest of the world depended upon its one remaining cable landing. If that cable had been damaged for any reason, the country would have been effectively isolated from the rest of the world's economy. Other nations experienced similar loss of resiliency, but the level varied depending upon the number of other cables the nation had connecting it to rest of the world.

Because of the unprecedented nature of these depredations, a review of the information reported in the press is worthwhile until such time as Vietnam

¹⁰ *Id.* A photograph of a different vessel with the caption "Fishing vessel seeking telecom cable" appeared in *VietnamNet Bridge*, with the article "Foreign telecom cables across Vietnam in danger," April 6, 2007.

¹¹ Cable owners typically order anticipated spares for a cable system during its expected commercial service at the time the cable is originally purchased. Normally, a repair in the waters where the depredations took place would require about 1 km of cable. Thus, the theft of 100 km of cable would be equivalent to what would normally be expected to repair up to 100 cable faults, a number far in excess of what reasonable experience would dictate when ordering spares. Once spares are exhausted, obtaining replacements can involve a new factory order with all of the increased cost and time delay associated with such a special order.

issues an official report of its investigation of the depredations committed by its vessels.

On May 21, 2007, it was reported that the Vietnamese military had recovered a significant amount of cable and related equipment on Vietnamese soil.¹² A report dated May 5, 2007 suggests that the stolen cable sample have been identified as TVH cable. Samples were forwarded to the manufacturer for confirmation that they belong to APCN or TVH.¹³ The same article reported that numerous vessels had been outfitted with specialized equipment for cutting submarine cables and that information on the coordinates for submarine cables was being sold to other vessels.¹⁴

On June 1, 2007, it was reported that over 500 km of telecom cable taken by fishing vessels was seized by Vietnamese police, who were in the process of breaking up five rings in the business of selling stolen cable. Amongst the recovered cable was an 11 km segment identified as belonging to the SEA-ME-WE3 cable system. The same article reported vessels detected on April 15 and May 3 with stolen cable.¹⁵

On June 11, 2007, *CommsDay* published the following story, which suggests that this rash of cable theft can be traced directly or indirectly to actions by the Vietnamese government, the flag State of the culprit vessels:

An agreement to allow Vietnamese fishermen to salvage aging undersea copper cables has inadvertently left the nation with a single link to the outside world. Overenthusiastic fishermen have yanked up all but one of the country's undersea cable links—an estimated 43km of fibre valued at several million dollars. Authorities previously reported a vanished 11km span providing connectivity with Thailand and Hong Kong and estimated \$5.8 million in replacement costs. "The general assessment is that

¹² *Id.*

¹³ Costin, *supra* note 5.

¹⁴ *VietNamNet Bridge*, "Co-ordinates with optical cable sold at VND15-20M," May 6, 2007.

¹⁵ Abu Saeed Khane, "Vietnam's Submarine Cable Lost' and 'Found," June 2, 2007.

most fishermen, and in some cases even the local authorities, had a very simple understanding of the consequences of the theft of under-sea fibre optic cable," concluded a Ministry of Posts and Telematics report. Last year, authorities gave fishermen a green light to salvage undersea copper links sunk prior to 1975.

The same day, ONE, in a story by Martyn Warwick, reported similar information:

A government agreement that allows Vietnamese fishermen to augment their incomes by salvaging underwater copper cables has spectacularly backfired to such a massive extent a that the country is now left with just one extant submarine link to the outside world.

It seems that overenthusiastic Vietnamese anglers have fished-up up all but one of the country's undersea cable links and have carted-off some 43 kilometers of copper cable and newer fiber with a value of several million dollars.

The Vietnamese authorities sheepishly admit that at least an 11 kilometer span that used to provide connectivity with Thailand and Hong Kong has gone awol and will cost an estimated USD 5.8 million to replace.

A report, a masterpiece of studied understatement on the part of the Vietnamese Ministry of Posts and Telematics, says, that the general assessment is that most fishermen, and in some cases even local authorities, have a very simple understanding of the consequences of the removal and theft of undersea cables. (or a very real appreciation of the value of the second-hand copper cable market).

In 2006, the Vietnamese authorities gave fishermen permission to salvage, remove and sell lengths and sections of subsea cable identified and pinpointed by the government and signed-off has having been deployed before 1975. However, the fishermen have taken the authorization as carte blanche to grab, rip up and rip off any cable they find regardless of when it was laid or whether or not it is in use.

Given the extensive network of submarine cable systems, multiple landing points and the variety of affected States, possible claimant States against the flag State of Vietnam include Thailand (CAT Telecom Public Company Limited), Japan (KDDI), China (Hong Kong) (REACH), Singapore (SingTel), Taiwan (Chunghwa Telecom), Telekom Malaysia (Malaysia), Australia (SingTel-Optus, REACH), the Philippines (PLDT), Korea (KT Corp), the United Kingdom (Cable & Wireless), and the United States (AT&T, Sprint, Verizon). Each of these nations is the site of a landing station and/or has a national company that has ownership in one or both of the cables.¹⁶

Remedies under the United Nations Law of the Sea Convention.

This section analyzes the various grounds upon which a State may assert a claim on behalf of injured cable owner incorporated or present within its jurisdiction. Cable owners, of course, have direct recourse to traditional admiralty remedies in national courts that have jurisdiction over the vessels and persons responsible for the depredations. The burden of proof in such actions is well established.¹⁷ At least with respect to the Vietnamese registered vessel which was photographed in the act of stealing APCN cable, this burden appears met, assuming that the vessel can be arrested by a court of competent jurisdiction. However, in the present case, there are a number of factors that suggest that traditional admiralty remedies are unlikely to be effective in obtaining compensation or deterring future depredations. Specifically, the

¹⁶ With the exception of the United States which is not a party, all of these States are parties to UNCLOS. The distinction bears directly on available remedies, because parties have compulsory and binding dispute resolution options available to them under Art. 297(1)(a), while a signatory does not.

¹⁷ The burden of proof is met when the cable owner can prove (1) that the culprit vessel had notice (actual or constructive from charts), (2) that the cable was damaged by unnatural [mechanical] means, (3) that the culprit vessel was near the cable fault within reasonable proximity as to time and geographic location, (4) that the vessel was capable of damaging the cable in the manner in which it was found, and (5), that no other culprit vessels were in the general area of the damaged at the time it occurred. Douglas Burnett, *The Cable Owner's Search for the Great White Whale*, ICPC Plenary, Dubai, (1999).

number of vessels and criminal rings that appear to be involved, the evidence of State involvement, the solvency of the suspected depredators, and the difficulty of protecting cables outside of territorial seas all contribute to the conclusion that international State involvement is critical to the twin goals of victim compensation and deterrence against future depredations.

As a broad-based source of international maritime rights and obligations, the United Nations Law of the Sea Convention (1982) ("UNCLOS") contains a variety of provisions that could serve as the basis for claims asserted by an affected State(s).

Interference with the Freedom of Navigation Provided by UNCLOS Art. 87(1)(c)

Referred to colloquially as the "Constitution of the Oceans," UNCLOS establishes a series of basic freedoms that govern the collective, international use of the sea.¹⁸ Amongst the freedoms conferred onto all States¹⁹ is the freedom to lay submarine cables and pipelines.²⁰ Furthermore, Article 87 requires that States exercise "due regard" for the parallel interests of other States when exercising such freedoms.²¹

The Draft Articles of State Responsibility for Internationally Wrongful Acts ("Draft Articles") characterize an internationally wrongful act²² as conduct consisting of an "act *or* an omission"²³ in breach of an international obligation of that State (emphasis added). Therefore, depending on facts revealed in the

¹⁸ UNCLOS, art. 87.

¹⁹ The rights conferred belong to all States, regardless of whether or not they are party to the Convention.

²⁰ UNCLOS, art. 87(c). This freedom is subject to Part IV, pertaining to archipelagic states.

²¹ *Id.* art. 87(2).

²² State responsibility is triggered by an internationally wrongful act. I.L.C. *Draft Articles of State Responsibility for Internationally Wrongful Acts*, art. 1 (2001) available at http://untreaty.un.org/ilc/texts/9_6.htm.

²³ *Id.* art. 2.

course of future investigation, the freedom to lay submarine cables may serve as a two-fold basis for bringing a claim.

Current reports²⁴ suggest that the reported depredations may be attributable to a 2006 agreement between the Vietnamese government and local fishermen to salvage cable not only in Vietnamese territorial seas, but beyond this maritime boundary. In the event that Vietnam (1) licensed these activities, (2) financed directly or indirectly the equipping of vessels for cable recovery and cutting, (3) provided route position lists ("RPL") for active cables, (4) provided the fishermen with the requisite skills to recover live cables, (5) participated either directly or indirectly in the proceeds from the sale of stolen cable, (6) failed to exercise due diligence in the supervision of the salvage activities it encouraged or authorized, or (7) failed to take effective actions to prevent assaults on active cables after notice of actions that violated international law, Vietnam may have violated Article 87(1)(c) by infringing on the rights of other States²⁵ by interfering with active cable systems.²⁶ If any of the proceeding took place, Vietnam has exposed itself to liability. This is true regardless of whether the depredations occurred within the Exclusive Economic Zone ("EEZ") or continental shelf boundary claims of Vietnam.²⁷ Article 8 of the Draft Articles

²⁴ CommsDay, *Vietnam's Cable Missing* (June 11, 2007)

²⁵ Under international law, although it is a corporate person whose property has been damaged, the rights it possesses at the international level are merely derivative of the rights of its state of nationality. See generally *Case Concerning the Barcelona Traction, Light and Power Co., Ltd.* 1970 I.C.J. 3.

²⁶ Although Article 87 phrases this freedom in the active tense (i.e. the freedom to *lay* rather than *maintain* cable systems), when read in the context of other UNCLOS articles concerning cables, it is obvious that the freedom to lay encompasses cable operation, maintenance and repair. In particular, see Articles 58(1) and 79(5)).

²⁷ See UNCLOS Articles 58(1) ("In the exclusive economic zone all States, . . .enjoy. . .the freedoms referred to in article 87 . . . of laying submarine cables. . .and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of submarine cables"); 78 ("The legal exercise of the rights of a coastal State over the continental shelf must not infringe or result in any unjustifiable interference with the navigation and other rights and freedoms of other States as provided

provides that the conduct of an individual or group of individuals is attributable to the State if they are "acting on the instructions of" or "under the direction of" that State.

Alternatively, if the incidents of theft are *not* the product of an agreement with Vietnamese fishermen, it may still be claimed that Vietnam has violated Article 87 by omission. A State has the responsibility to exercise both "jurisdiction and control" over ships flying its flag in respect of "administrative, technical and social matters."²⁸ In this case, it should be argued that by failing to exercise such control, Vietnam has effectively breached its obligation to respect the freedom of other States to lay submarine cables outside of its territorial sea.

A supervisory omission may incur the same level of State responsibility as an act directly attributable to an organ or official of that state. The series of disputes between the United States and Great Britain following the American Civil War, known collectively as the *Alabama Claims Arbitration*,²⁹ provide an example of just such a situation. During the Civil War, Confederate agents were able to procure ships designed as commerce raiders from British shipbuilders to "prey" on Northern merchant vessels.³⁰ Although the objectionable conduct was attributable to private citizens, the five-person arbitral tribunal ordered Great Britain to pay the United States USD 15,500,000 in gold³¹ for the merchant ship losses of its nationals for failing to "use due diligence in the performance of its neutral obligations," by not taking timely and effective measures to detain the vessels after notice of the belligerent intentions of the buyers, failing to implement measures to pursue and arrest the vessels after their escape, and

for in this Convention"); and 79(2) (" . . .the coastal State may not impede the laying or maintenance of such cables").

²⁸ UNCLOS, art. 94(1).

²⁹ (U.S. v. U.K.), 1 Moore Int. Arb. 495 (Geneva Trib. 1872).

³⁰ Tom Bingham, *The Alabama Claims Arbitration*, 54 INT'L & COMP. L.Q. 1, 4 (2005).

³¹ *Id.* at 1.

allowing the cruisers to be subsequently admitted into its ports without consequence.³²

Depending upon the facts, it appears that even if not directly or indirectly involved in the depredations, the Vietnamese government failed to exercise due diligence in supervising the activities of its registered vessels which were acting pursuant to a 2006 agreement with the State, in not arresting culprit vessels and not taking timely effective measures to prevent their continued operation and in allowing the vessels to continue to operate from Vietnamese ports.

Failure to Fulfill Flag State Responsibility Under UNCLOS Art. 94(7)

An alternative basis for State responsibility would be to claim that Vietnam violated its obligations under Article 94(7) of UNCLOS, which provides that:

Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. The flag State and the other State shall cooperate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.

As a relatively complex provision, there are a number of sub-components that must be unpacked and satisfied. Firstly, an instance of cable depredations must be capable of characterization as either (i) a "marine casualty" or (ii) an "incident of navigation."³³ Article 221 of UNCLOS offers some guidance on the application of these terms. Specifically, Article 221(2) provides that:

For the purposes of this article, "maritime casualty" means a collision of vessels, stranding or other incident of navigation, or

³² *Alabama Claims*, 1 Moore Int. Arb. at 655.

³³ UNCLOS, art. 94(7).

other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

The authors of an authoritative commentary on UNCLOS state that "maritime casualty" and "marine casualty" are taken to have the same meaning.³⁴ The authors further agree that, given the generality of the definition of "maritime casualty," there is "no clear reason" for limiting the meaning of the expression to Article 221.

Submarine cable depredation may be defined as a form of "maritime casualty" like any other allision.³⁵ The definition provided by Article 221 includes occurrences "external" to the subject vessel. Furthermore, while article 221 characterizes the necessary outcome of "maritime casualty as damage or the threat of damage to a *vessel or cargo*," there is a compelling reason *not* to import this part of the definition into Article 94. Specifically, Article 94(7) already lists the requisite (alternative) outcomes as: (i) loss of life (ii) serious injury to nationals of another state (iii) serious damage to ships (iv) serious damage to installations (v) serious damage to another State or (vi) serious damage to the marine environment. Given that Article 94 provides a much more extensive enumeration of included consequences or outcomes, it seems to intentionally deviate from the more restrictive definition set forth in Article 221.

Finally, the consequence of cable depredation can easily be understood as constituting a "serious injury to nationals of another State."³⁶ It is well accepted under international law that a State is responsible for injury to a national of another state caused by an official act *or omission* that violates "a right to property or another economic interest" that the state is obligated to

³⁴MYRON H. NORDQUIST, UNITED NATIONS COMMENTARY ON THE LAW OF THE SEA, 1982: A COMMENTARY, 151 Vol. III (1995).

³⁵ Allision is defined as "the contact of a vessel with a stationary object such as an anchored vessel or a pier [or cable]," *Black's Law Dictionary*, 8th Ed. (2004)

³⁶ UNCLOS, art. 94(7).

respect for persons of foreign nationality.³⁷ In other words, an "injury" to a foreign national may consist of an injury to property or other economic interests.

Failure to Domesticicate UNCLOS Art. 113

Article 113³⁸ of UNCLOS requires that every State party to the convention enact domestic legislation making the willful or negligent "breaking or injury" of a submarine cable a punishable offense. The issue is whether Vietnam has complied by enacting such legislation. If substantiated, the press report that Articles 138 and 231 of the Vietnamese Penal Code³⁹ are potentially applicable to depredations on the high seas, these provisions may fulfill Vietnam's obligations under Article 113. A cursory examination of the articles does not indicate that these articles implement the treaty or are applicable to acts committed outside of Vietnamese territory on the high seas.⁴⁰

Article 113 requires only that States enact law, not that they prosecute every instance of violation. Under customary international law, there is some support for the proposition that failure of the state to provide redress for an injury inflicted on the alien by some private person constitutes a denial of justice, which in turn triggers State responsibility.⁴¹ The dispute settlement procedures

³⁷ Restatement (Third) Foreign Relations Law of the United States § 711 (1987).

³⁸ Article 113. *Breaking or injury of a submarine cable or pipeline*

Every State shall adopt the laws and regulations necessary to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done willfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline of high-voltage power cable, shall be a punishable offence.

³⁹ Available in translation at

http://vbqappl.moj.gov.vn/law/en/1991_to_2000/2000/200001/200001040005_en

⁴⁰ For purposes of contrast, see 47 U.S.C. § 21 et.seq. ("The Submarine Cable Act"), implementing legislation of the United States.

⁴¹ It is worth noting that the difficulty with this purportedly customary rule is that what is considered adequate redress in one State is often quite different from the standards applied by another. This divergence would be relevant in the event that the present claim were to be adjudicated in another international forum (ex. the ICJ). Some states (primarily

contained in Part XV of UNCLOS apply only to those disputes concerning the application or interpretation of UNCLOS or related treaties that provide for the use of Part XV of UNCLOS. This may exclude a claim based on any alleged failure of Vietnam to domesticate under Article 113.

Even if not directly applicable, however, Article 113 provides a concise restatement of customary international law that defines with precision the type of conduct that is a violation of Article 87(1) (c). Article 113 provides that any conduct that is done willfully or by culpable negligence and results in or is likely to result in injury to a cable on the high seas is unlawful.⁴²Based on the evidence

those which are Western and industrialized) argue that there is a "minimum standard of justice" which must be provided to their nationals, regardless of the standard afforded to nationals of the host state. Other states (primarily Latin American and Eastern European) contend that they need only abide by the principle of sovereign equality, thereby affording the same standard of justice to foreign nationals as is enjoyed by their own citizens.

⁴² See Decision of Police Court of Saint-Malo Re Trial of French Trawler, Alex Pleven, 9 Whiteman, Digest of International Law at 948-951 (1961):

Indeed, if the ship involved does not expressly violate Articles R46 and R47, particularly paragraph 3 of the latter, since the position of the cable is not indicated by a line of buoys, it really commits a *culpable negligence* by trawling on the cable when the presence of the said cable is known to him by the charts in its possession as well as by a telegram addressed to all trawlers fishing in the vicinity.

The sentence passed on October 3, 1966 by the Police Tribunal of Saint Malo is of great importance since it intervenes in a field where judicial decisions are very rare, although the rules defined by International Conventions are imperative and clear. Indeed, though submarine cable breaks are relatively frequent and always very detrimental to the companies and the administrations using them, it is very difficult to bring charges against the fishing ships responsible for the breaks; moreover, the proof of the facts is most often virtually impossible in view of the particular conditions of the fishing industry and navigation on the Grand Banks of Newfoundland.

Obviously, the protection of submarine cables laid in high seas in non-territorial waters cannot be guaranteed as in territorial waters because of the absence of a true authority of international police or of *international tribunals*.

Since this decision, ITLOS has been created and can provide protection for international cables on the high seas.

reported, it seems apparent that the depredations were the result of willful conduct.

Using Article 113 to define a violation of Article 87(1) (c) also triggers remedies of special interest to cable owners, the boarding of a vessel by a warship.⁴³ Exercise of this right is seen in *The Novorossiisk*,⁴⁴ when a warship boarded a fishing trawler on the high seas suspected of cutting transatlantic cables to obtain evidence.⁴⁵ This type of preventative action is precisely the kind

⁴³ Article 10 of the International Convention for Protection of Submarine Cables ("Cable Convention"), 24 Stat. 989-1000 (14 March 1884), 25 Stat. 1424, (1 December 1886), 25 Stat. 1425 (7 July 1887), T.S. 380 ("Cable Convention") provides:

Evidence of violations of this convention may be obtained by all methods of securing proof that are allowed by the laws of the country of the court before which a case has been brought. When the officers commanding the vessels of war or the vessels specially commissioned for that purpose, of one of the High Contracting Parties, shall have reason to believe that an infraction of the measures provided for by this Convention has been committed by a vessel other than a vessel of war, they may require the captain or master to exhibit the official documents furnishing evidence of the nationality of the said vessel. Summary mention of such exhibition shall at once be made on the documents exhibited. Reports may, moreover, be prepared by the said officers, whatever may be the nationality of the inculpated vessel. These reports shall be drawn up in the form and in the language in use in the country to which the officer drawing them up belongs, they may be used as evidence in the country in which they shall be invoked, and according to the laws of such country. The accused parties and the witnesses shall have the right to add or to cause to be added thereto, in their own language, an explanation that they may deem proper; these declarations shall be duly signed.

Unlike the UNCLOS provisions for piracy, the Cable Convention allows the warship to obtain evidence, but does not provide for seizure of the vessel or universal jurisdiction over the vessel and crew.

⁴⁴ Dept. of State Bull. Vol.XL, No. 1034 at 555 (Apr. 20, 1959).

⁴⁵ *Id.* In relevant part:

"The last four cable breaks referred to above were all located within 14 miles of each other and were each within a 12-mile radius of the observed position of the trawler NOVOROSSIIISK on February 25, 1959, with the nearest two breaks no more than five miles distant. The five reported cable breaks all occurred within a radius of 52 miles of one another. ... A line joining the last four reported positions of the breaks is a straight line with the breaks occurring in succession in the direction of approximately 160° T. A vessel in that vicinity

of effective preventative measure that an ITLOS provisional measure could provide to APCN and TVH.⁴⁶

trawling in a general southerly direction during the period in question would have been in the locations necessary to cause the breaks.

The boarding officer, communicating by means of French through an interpreter, duly informed and explained to the master of the trawler NOVOROSSIISK the purpose of his visit and his actions were authorized pursuant to the convention of 1884. He examined, with the consent and acquiescence of the master, the papers of the trawler which appeared to be in order..

"The boarding officer found that the latitude and longitude which the trawler NOVOROSSIISK recorded in her journal for the previous days' positions also showed her to have been in the immediate vicinity of all five cable breaks. Upon request, the master produced the message dropped on the deck of the trawler on the previous day from the aircraft of the American Telephone and Telegraph Company. On the basis of the foregoing evidence, the boarding officer concluded that an examination of the fishing gear and equipment was justified to determine whether the trawler was capable of causing the cable breaks.

The unarmed boarding officer, with the consent of the master of the trawler, observed without deep examination, on the upper main deck of the trawler only, the trawling equipment and fishing gear. The boarding officer noted that the trawling equipment was of the type for deep sea fishing, and was in general fairly new, with the exception of the otter boards and net discs which were well worn and in poor condition. The trawling cable was estimated to be about 300 fathoms in length, sufficiently long enough to drag the gear on the bottom at the depth in the area—about 180 fathoms. Two broken sections of trawling cable each about 60 feet in length were observed wrapped around the hatch on deck. The four ends of these cables were shredded and frayed and appeared to have parted as a result of a sudden strain such as could have been caused by snagging the gear. These sections are identical in type, age, and condition with the trawling, cable. Some of the fish observed lying frozen on the deck were of the bottom type. ... "A preliminary report emanating from the cable repair ship LORD KELVIN which has since repaired the first broken cable states that the eastern portion of the damaged cable had been badly scraped and scuffed for about a mile east of the break. The cable had been severed by cutting. The technical opinion is that such evidence indicates that a trawler had picked up the cable with its drag, then having pulled it on deck, had cut it to release the nets.

The above-stated record of events shows that, contrary to the assertions and charges made in the above-mentioned note of the Union of Soviet Socialist Republics, the visit to the Soviet trawler NOVOROSSIISK .under the circumstances shown was entirely justified and was in every respect in accordance with international law and applicable treaty provisions.

The Government of the United States is satisfied that the evidence in its possession raises a strong presumption that the master and crew of the Soviet trawler NOVOROSSIISK have violated Article II of the convention of 1884 above-mentioned which provides that 'the breaking or injury of a submarine cable, done willfully or through culpable negligence, and resulting in the total or partial interruption¹ of telegraphic communication shall be a punishable offense."

⁴⁶ The Cable Convention is compatible with and supplements UNCLOS. Article 311(2).

Submarine Cable Depredation Is Piracy Under UNCLOS Art. 101

A piracy claim against Vietnam could be framed in either of two ways. Firstly, a claim could be based on the assertion that Vietnam has failed to "cooperate... in the repression of piracy on the high seas."⁴⁷ Alternatively, if it appears that the Vietnamese government has encouraged cable depredation or provided training, equipment, or RPL's with respect to cable recovery, an assertion of piracy could be made against Vietnam on the grounds that it "intentionally facilitat[ed]" a piratical act.⁴⁸

Finally, if it turns out that the vessels acted as rogues, without legal authority, provisional measures under Articles 100-107 and 110 allow any nation's warships to take action to sweep them from the sea, thus preventing future assaults and creating a credible deterrent by the example of the loss of the vessel and penal consequences for the crew in any appropriate forum.

Obstacles to Bringing Submarine Cable Theft under Piracy

One obstacle to bringing a claim based on piracy is the conceptual act of defining (or redefining) piracy to include submarine cable depredation. Despite the antiquity of the offense, many contemporary scholars⁴⁹ agree that there is no authoritative definition of piracy under customary international law. Since the depredations against APCN and TVH appear to be the first peacetime assaults on active submarine cables since they were first laid in 1850, there is no precedent to follow.

The formula adopted in Article 101 of UNCLOS defines piracy as:

⁴⁷ UNCLOS, art. 100.

⁴⁸ *Id.* art. 101(c).

⁴⁹ See e.g. Tina Garmon, *International Law of the Sea: Reconciling the Law of Piracy and Terrorism in the Wake of September 11th*, 27 TUL. MAR. L.J. 257, 260 (2002); see also Lawrence J. Kahn, *Pirates, Rovers, and Thieves: New Problems with an Old Enemy*, 20 TUL. MAR. L.J. 293, 295-96 (1996).

(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;***

(b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft; and

(c) ***any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).***

Despite the relatively wide acceptance of this definition, it is pervaded by ambiguity. In part, the lack of clarity may reflect the ancient nature of piracy and its discordance with contemporary maritime realities. The most prominent debates⁵⁰ surrounding this definition of piracy may be summarized as follows:

- *The Two Vessel Controversy* - The issue of whether the act "must involve two or more ships" has contributed to the absence of a cohesive definition. Some commentators suggest that the traditional conception of piracy involves an act by the crew or passengers of one vessel "against another vessel."⁵¹ Others maintain that the "essence of a piratical act" is merely "violence, committed at sea... by persons not acting under proper authority."⁵²

⁵⁰ This list is necessarily non-exhaustive. Debates have cropped up concerning the meaning of an "illegal act," the meaning of "voluntary participation," "incitement," and "intent," amongst others. For a more thorough discussion see Samuel Pyeatt Menefee, *The New "Jamaica Discipline": Problems with Piracy, Maritime Terrorism and the 1982 Convention on the Law of the Sea*, 6 CONN. J. INT'L L. 127, 141-48 (1990).

⁵¹ E.g. Erik Barrios, *Casting a Wider Net: Addressing the Maritime Piracy Problem in Southeast Asia*, 28 B.C. INT'L & COMP. L. REV. 149, 156 (2005).

⁵² Garmon, *supra* note 23, at 261 (quoting BRIERLY, THE LAW OF NATIONS 154 (1928)).

- *The Private Ends Limitation* - Article 101 limits the definition of piracy to those acts motivated by "private ends." The effect is to rule out acts driven by political objectives. Given growing concerns about terrorism at sea, this limitation is by no means insignificant.⁵³ Some scholars consider it a political imperative to reconcile the conceptual disparity between piracy and terrorism.⁵⁴
- *The High Seas Limitation* - Only those acts that occur outside the jurisdiction of any state may be considered piratical. Thus, any act that takes place in the territorial waters⁵⁵ of a coastal state is not an act of piracy. In light of recent statistics that reveal that most incidents of "piracy," as traditionally understood, occur within territorial and port waters.⁵⁶ Under Article 58(2), the piracy provisions apply not only on the high seas but in the EEZ. In the case of APCN and TVH, the deprivations took place within the EEZ or on the high seas, but not within the territorial sea.
- **Eliminating or Proving the Non-existence of a Two-Vessel Requirement**

At least facially, as an "illegal act"⁵⁷ of "detention," submarine cable depredation appears easily situated within Article 101. Given the destructiveness of cable theft to the remaining system, the act might also be successfully

⁵³ See generally Garmon, *supra* note 23.

⁵⁴ *Id.*

⁵⁵ The territorial sea extends up to 12 nautical miles from the baseline of a coastal State. Art. 3.

⁵⁶ See International Maritime Organization, *Reports on Acts of Piracy and Armed Robbery Against Ships: Annual Report 2002*, MSC.4/Circ. 32, April 17, 2003, available at http://www.imo.org/includes/blastDataOnly.asp/data_id%3D7215/32-b&w.pdf (last visited June 12, 2007).

⁵⁷ As noted above, Article 113 of UNCLOS requires that submarine cable theft be made a punishable offense by all States parties to the Convention. Furthermore, Article 87 defines as a basic *internationally* recognized freedom, the freedom to lay cables. Therefore, the question of whether "illegal acts" depends on domestic or international law is arguably moot in the present case.

characterized as one of "depredation." Based on the presently available facts, while the Vietnamese government seems to have played a role in either licensing, unleashing, or training and equipping fishermen in cable recovery, it is by no means apparent that the actual act of recovery was motivated by anything other than private economic gain.

Therefore, for the present purposes, the most significant of the above debates is the two-vessel controversy: namely, whether the definition of piracy adopted in UNCLOS imports any such requirement. The following sections will offer a series of arguments for why such a requirement may not be inferred from the text of UNCLOS.

Text of UNCLOS Article 101(a)(i) Confirms a Single-Vessel Concept of Piracy

In accordance with the Vienna Convention on the Law of Treaties ("Vienna Convention"), Article 101 of UNCLOS must be "interpreted in good faith in accordance with the ordinary meaning to be given to the terms... in their context and in the light of its object and purpose."⁵⁸ While this interpretive rule simultaneously references textual, contextual and purposive interpretation, the International Law Commission (I.L.C.) Commentaries which accompany the Vienna Convention suggest that it is "based on the view that... the starting point of interpretation is the elucidation of the meaning of the text," not an investigation *ab initio* into the intentions of the parties."⁵⁹

There is a strong textual argument to support the absence of a two-vessel requirement. Article 101(a)(i) and (ii) delineate two categories of piratical acts based on the person or object toward which they are directed. Under Article 101(a)(i), an act may be piratical if directed toward "another ship or aircraft, or against persons or property *on board* such ship or aircraft" (emphasis added). By

⁵⁸ 8 I.L.M. 679, art. 31 (1969).

⁵⁹ Quoted in LORI DAMROSCH, ET. AL., INTERNATIONAL LAW 508 (4th ed., 2001) (1980).

contrast, Article 101(a)(ii) provides that a piratical act may be directed toward a ship, aircraft, person, *or property* in a location outside the jurisdiction of any state. In the latter category, the language requiring that the object of the act be *on board* a ship or aircraft is conspicuously absent. The insertion of the "on board" term in Article 101(a)(i) indicates that, had the framers of the Convention intended it to apply to Article 101(a)(ii), they would have indicated so explicitly.

Source of Article 101 Suggests an Express Rejection of the Two-Vessel Requirement

The sources from which the UNCLOS definition of piracy is derived bolster the conclusion that no two-vessel requirement should be imputed. The text of Article 101 was borrowed, verbatim, from the 1958 Convention of the High Seas.⁶⁰ The text of the 1958 Convention was in turn modeled after the Harvard Research in International Law, Comment on the Draft Convention of Piracy ("Harvard Draft"),⁶¹ which defined piracy as

[A]ny act of violence or depredation committed with the intent to rob, rape, wound, enslave, imprison or kill a person or with intent to steal or destroy, for private ends without bona fide purpose of asserting a claim of right, provided that the act is connected with an attack on or from the sea or in or from the air.

The text of the Harvard Research Draft contains no reference to the object of a piratical attack, much less limit relevant objects to persons or property aboard a vessel. Instead, it appears to be based on the broader conception articulated above: namely, that the essence of a piratical act is merely "violence, committed at sea... by persons not acting under proper authority."⁶²

A second historical reason to doubt the inclusion of a two-vessel requirement is the rejection of Malta's proposed definition of piracy at the 1971

⁶⁰ NORDQUIST, *supra* note 16, at 198.

⁶¹ 26 AM. J. INT'L L. 749, 750 (1932).

⁶² BRIERLY, *supra* note 26, at 54.

session of the Sea-Bed Committee. It is significant insofar as it restricts the definition of piracy to those acts

*directed anywhere in the ocean space or in the superjacent atmosphere against another vessel or aircraft, or against persons or property on board such a vessel or aircraft.*⁶³

In other words, the two-vessel requirement was a subject of political discourse before the 1982 adoption of UNCLOS. What may be inferred is that the drafters of the Convention consciously chose to create two categories of piratical objects, rather than one.

An interpretation of Article 101 in the context of the UNCLOS preamble that "recogniz[es] the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication," and the carefully woven protection of submarine cables throughout UNCLOS in Articles 21, 51, 58, 79, 87, 112-115, and 297, which protect cables in all zones and regimes, the inclusion of the property category, in addition to the categories of ships and aircraft, must include the property of submarine cables that are so vital to international communication.

Temporal Ripeness

The recent dramatic increase of maritime violence in Southeast Asia is uncontested.⁶⁴ In fact, maritime attacks in the region⁶⁵ are estimated to have caused more than USD 16 billion in economic loss between 2000 and 2005.⁶⁶ Coupled with the unprecedented outbreak this year of submarine cable depredation, maritime violence and destruction is an area of international

⁶³ NORDQUIST, *supra* note 16 at 198.

⁶⁴ Barrios, *supra* note 25 at 150.

⁶⁵ Defined as attacks on commercial vessels.

⁶⁶ Barrios, *supra* note 25 at 150 (quoting John J. Brandon, *Piracy as Terrorism*, J. COM., June 3, 2003 at <http://www.uscib.org/index.asp?documentID=2153> (last visited November 20, 2004)).

regulation that warrants, and is likely to garner, significant international political attention. To the extent that international law mirrors international relations, now is the right time to seek judicial clarification of piracy and to do away with any ambiguities that have "hobbled the usefulness of [international agreements] in combating piracy,"⁶⁷ especially in its recent mutation directed at cables.

Defining Submarine Cable Theft as Piracy

Although the contemporary economic and political climate are indicative of an atmosphere conducive to dealing with submarine cable depredation, it is typically more effective—and certainly more expedient—to extend an existing enforcement regime than it is to develop an entirely novel legal framework. Defining cable depredation as piracy within the meaning of Article 101 will facilitate a meaningful political and legal response that is not unfamiliar to States.

Under UNCLOS, all States⁶⁸ are required to cooperate "in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State."⁶⁹ UNCLOS enables States in carrying out this responsibility in a number of respects. Firstly, while on the high seas, a warship or military aircraft⁷⁰ belonging to any State may seize a ship or aircraft known to be a pirate ship or to be under the control of pirates.⁷¹ Secondly, on the high seas, a warship or aircraft belonging to any State is justified in boarding a foreign ship if "there is reasonable ground for *suspecting*" that it is "engaged in piracy." The boarding officer is entitled to verify the ship's right to fly its flag and may then conduct a

⁶⁷ Menefee, *supra* note 24 at 141.

⁶⁸ This obligation is imposed on all states, regardless of whether they are parties to UNCLOS.

⁶⁹ UNCLOS, art. 100.

⁷⁰ Seizures may also be made by "other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect." *Id.* art. 107.

⁷¹ *Id.* art. 105.

further examination if suspicion remains.⁷² Thirdly, as a *jus cogens* crime, piracy is punishable by all nations "wherever the culprits may be found, without regard to where the offence occurred."⁷³ A provisional measure that firmly establishes cable depredation as piracy will strengthen international cable protection and place it among the objects of the highest protection of international law.

Beyond Piracy, the Terrorist Challenge to Cables Remains

The APCN and TVH depredations are addressed in UNCLOS. By contrast, if similar hostile actions had been undertaken by terrorists but for political and not private ends, the application of UNCLOS would be limited since such acts would fall outside of its piracy provisions.⁷⁴ This fact underscores a gap in legal protection for submarine cables outside of territorial seas which needs to be addressed.

One of the lessons painfully learned by the APCN and TVH depredations is that national governments are in most cases ill prepared to act in a timely manner either to prevent the attacks or to pursue the culprit ships when they were observed deprecating the cable. This must change.

There are several steps which can be taken to improve the situation.

First, working with telecommunications companies, States must establish in each country a single point of contact to report suspicious or threatening behavior by vessels which is likely to injury submarine cables as well as actual injuries to cables caused by vessels. Once notified, the State must be in a position to immediately work with other States to marshal available naval forces to conduct surveillance, patrol threatened cables, and, if necessary to board

⁷² *Id.* art. 110(2).

⁷³ Garmon, *supra* note 23 at 260. This right is affirmed by UNCLOS, Article 105.

⁷⁴ "Adequate jurisdictional mechanisms to ensure an effective response to attacks on submarine cables and undersea pipelines do not exist, nor does it appear there are international efforts in progress to remedy the situation. It can only be hoped that it is not the reality of an attack that acts to remedy the situation." Kaye, Stuart, "Measures to Protect Oil Platforms and Submarine Cables At International Law," scheduled for publication in 31 *Tulane Maritime Law Journal*, Vol. 2 (2007)

vessels suspected of violating UNCLOS.⁷⁵ At sea boardings outside of territorial seas are already provided for under international law,⁷⁶ but the enabling international law is often not familiar to decision makers.

Second, States must develop through agreements, war games, and naval exercises, procedures by which to train naval forces to intervene to protect submarine cable systems. A smooth and effective response to an alarm call from a telecommunications company will only happen if the relevant procedures are understood and routinely practiced by the decision makers and naval forces involved.

Third, UNCLOS provisions regarding the freedom to operate, maintain, and repair international cables outside of territorial seas must be adhered to by all States. In recent years there has been a disturbing trend by some coastal States to require permits for maintenance of cables, including emergency repairs. These actions are improper under UNCLOS⁷⁷; they add additional time and expense to restoring telecommunications. It should be emphasized that this third factor affects repairs caused for any reason, including natural disasters.⁷⁸

⁷⁵ The Regional Maritime Security Initiative ("RMSI," now known as Global Maritime Partnership) aims to develop a partnership of regional nations to identify, monitor, and intercept transnational maritime threats under existing international and domestic laws. RMSI and other cooperative diplomatic and naval tools are discussed in Cole, "A Framework for the Future," *U.S. Naval Proceedings*, August 2007 at pp. 54-59.

⁷⁶ See, *supra* at n. 43.

⁷⁷ See Articles 58(1)(2), 78(2) ["The legal rights of the coastal State over the continental Shelf must not infringe or result in any unjustifiable interference with navigation and other rights of other Freedoms as provided in this Convention."], 79(2){. . .the coastal State may not impede the laying or maintenance of such cables"}(5) [In particular, possibilities of repairing existing cables. . .shall not be prejudiced."], and 112(2){Article 79, paragraph 5, applies to such cables. .."}.

⁷⁸ On December 26, 2006, a Taiwan earthquake unleashed mud flows into the sea and caused resulting turbidity currents which caused 21 faults in 9 submarine cable systems, seriously disrupting internet and telephone traffic to China, Hong Kong, Singapore, Taiwan, Japan, and the Philippines. It took 11 cable repair ships 49 days to repair and restore everything back to normal. Part of the delay in repair is attributed to unreasonable and burdensome requirements for repair ships to wait for approval of emergency repairs in the EEZ of one country. Repair ships are normally stationed

The damage sustained to the TVH and APCN submarine cables underscore the need to rethink protection of submarine cable infrastructure by both companies and States. Working together on an international basis, they can ensure that the world continues to benefit from a diverse and robust submarine cable network.

around the world, contractually required to sail with 24 hours of notification. Having these expensive specialist ships remain in port awaiting needless permit authorizations is wasteful and puts international communications needlessly at risk. Even in routine single fault repairs, permit authorizations can take weeks or months.