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Guard the submarine cables that link us all

BY TARA DAVENPORT
FOR THE STRAITS TIMES

FIBRE-OPTIC submarine cables are the foundation of the world's telecommunications systems. They are laid on the seabed, are often no bigger than a garden hose, and transmit huge amounts of data across oceans.

Early this month, the international community gave long overdue recognition to the importance of submarine cables. On Dec 7, the United Nations General Assembly passed its annual omnibus resolution on oceans and law of the sea which, for the first time, contained two paragraphs on submarine cables.

Its calls on "states to take measures to protect fibre-optic submarine cables and to fully address issues relating to these cables in accordance with international law, as reflected in the Convention" (on the Law of the Sea) and "encourages greater dialogue and cooperation among states and the relevant regional and global organisations to promote the security of such critical communications infrastructure".

Singapore was instrumental in the adoption of these two paragraphs. It drafted the paragraphs and won support from

other states.

Singapore's leadership on this issue is a natural step for a country developing itself as a global telecommunications hub. As Ambassador Vanu Gopala Menon, Singapore's Permanent Representative to the UN, noted, "these unseen and unsung cables are the true skeleton and nerve of our world, linking our countries together in a fibre-optic web".

Although submarine cables have been used since 1850, from the mid-1960s satellites were used to route telecommunications, for submarine cables were considered slow and less reliable.

It was only in 1988 that developments in the use of fibre-optic submarine cable technology enabled reliable and high quality transmission of vast quantities of information across oceans. This coincided with the development of the Internet in 1991. The two technologies supported each other and revolutionised communications. Today, 95 per cent of the world's international telecommunications are routed via submarine cables.

However, submarine cables are vulnerable to a wide variety of threats including natural disasters, shipping and fishing activities. The damage caused to cables takes a considerable amount of time and resources to repair, with some repairs costing millions of dollars and disrupting

MASSIVE IMPACT

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**Ambassador Vanu Gopala Menon,
Singapore's Permanent Representative
to the United Nations**

telecommunications for many countries.

A greater danger, however, is the possibility of terrorist acts damaging submarine cables. As Mr Menon noted: "If an accident, or worse, a deliberate, well-planned act of sabotage knocks out a key node or portion of these cables, countries and even whole regions could suffer mas-

sive economic losses, social disruptions and compromises to national security."

This concern was reinforced by the recent WikiLeaks disclosure of a 2008 United States report describing submarine cables outside the US as "critical foreign dependencies", whose loss could greatly impact US security and the economy.

Despite the critical nature of submarine cables, there are many gaps in their protection.

■ First, many states have not enacted adequate legislation to protect cables within their territorial seas.

■ Second, for submarine cables located outside territorial seas, the 1982 UN Convention on the Law of the Sea requires states to adopt laws that criminalise the wilful or negligent breaking or injury of submarine cables beneath by ships flying their flags or by anyone subject to their jurisdictions. However, many of the 161 state parties to the convention have not yet implemented this obligation.

■ Third, with regard to terrorist acts against submarine cables, the convention only requires states to exercise jurisdiction over their own flag vessels or nationals that damage cables. Given that damage to submarine cables could affect many states, any state which has custody over perpetrators should be under an obligation to prosecute or extradite them.

This obligation has been recognised in all 16 counter-terrorism legal instruments.

The inadequacies in the protection of submarine cables may be due to the fact that "many countries are unaware of the critical importance of submarine cables", said Mr Menon. Government interest in submarine cables is usually limited to competition and licensing issues for telecommunications companies. Unlike vessels, there is no national registry for submarine cables and no one state has jurisdiction over them.

■ In addition, there is no international agency responsible for submarine cables. The International Telecommunications Union is the UN agency overseeing information and communication technology issues, but it has dealt primarily with standards in telecommunications. The International Cable Protection Committee plays an important role in the protection of submarine cables but it is a non-governmental organisation consisting of cable companies. Similarly, within national governments, there is often no lead agency responsible for submarine cables.

Given these gaps, the importance of the Dec 7 resolution cannot be underestimated. It is the first time that states have expressed a consensus on the need to protect cables in an international forum. Singapore should continue its efforts and take the lead in the discussion on how to implement the resolution.

The writer is a research associate at the Centre for International Law at the National University of Singapore.