

Sustainable Ocean Summit Singapore 2015

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Submarine Cables & the Future of the Oceans

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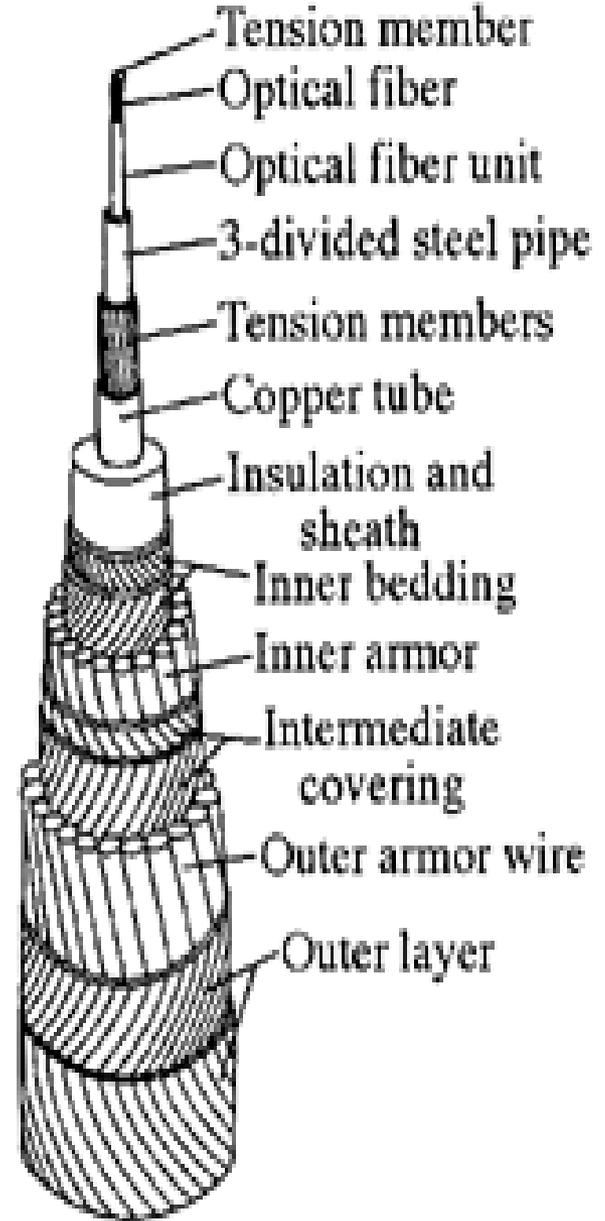
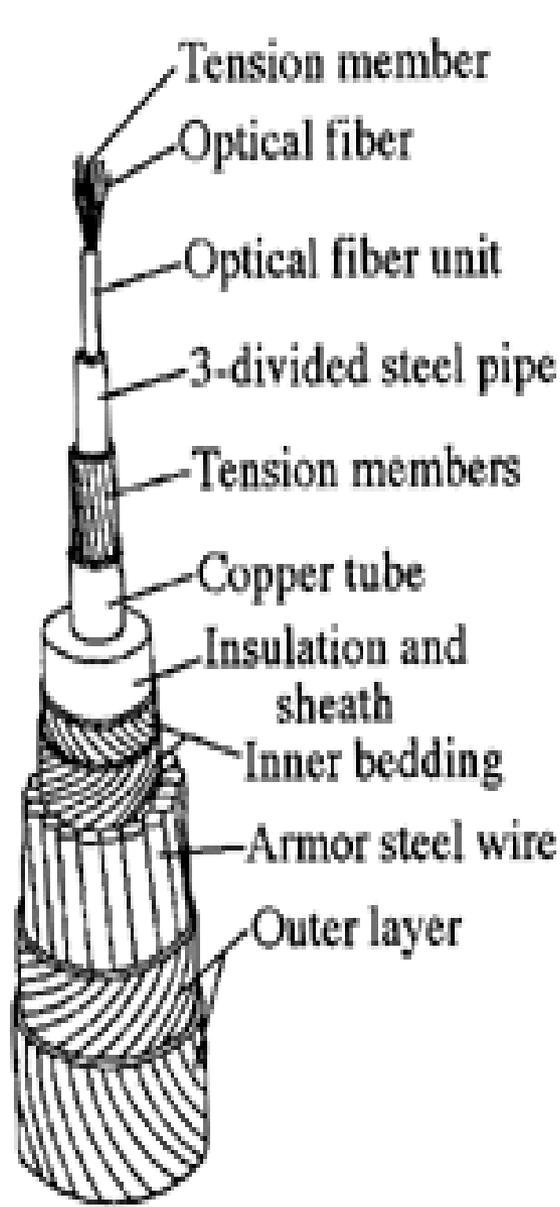
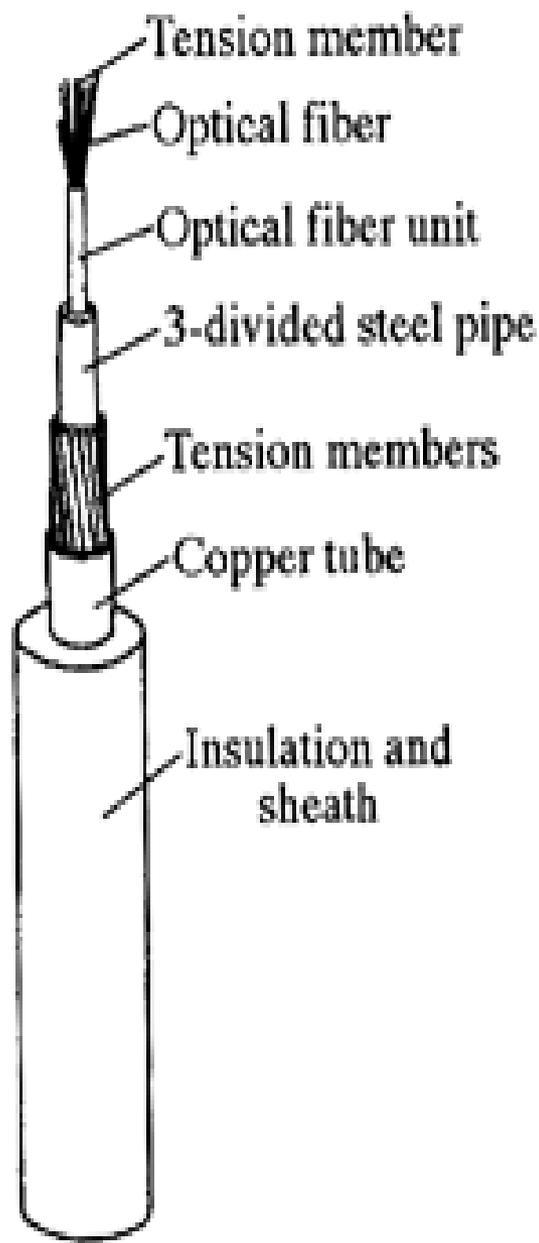


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Importance of Submarine Cables

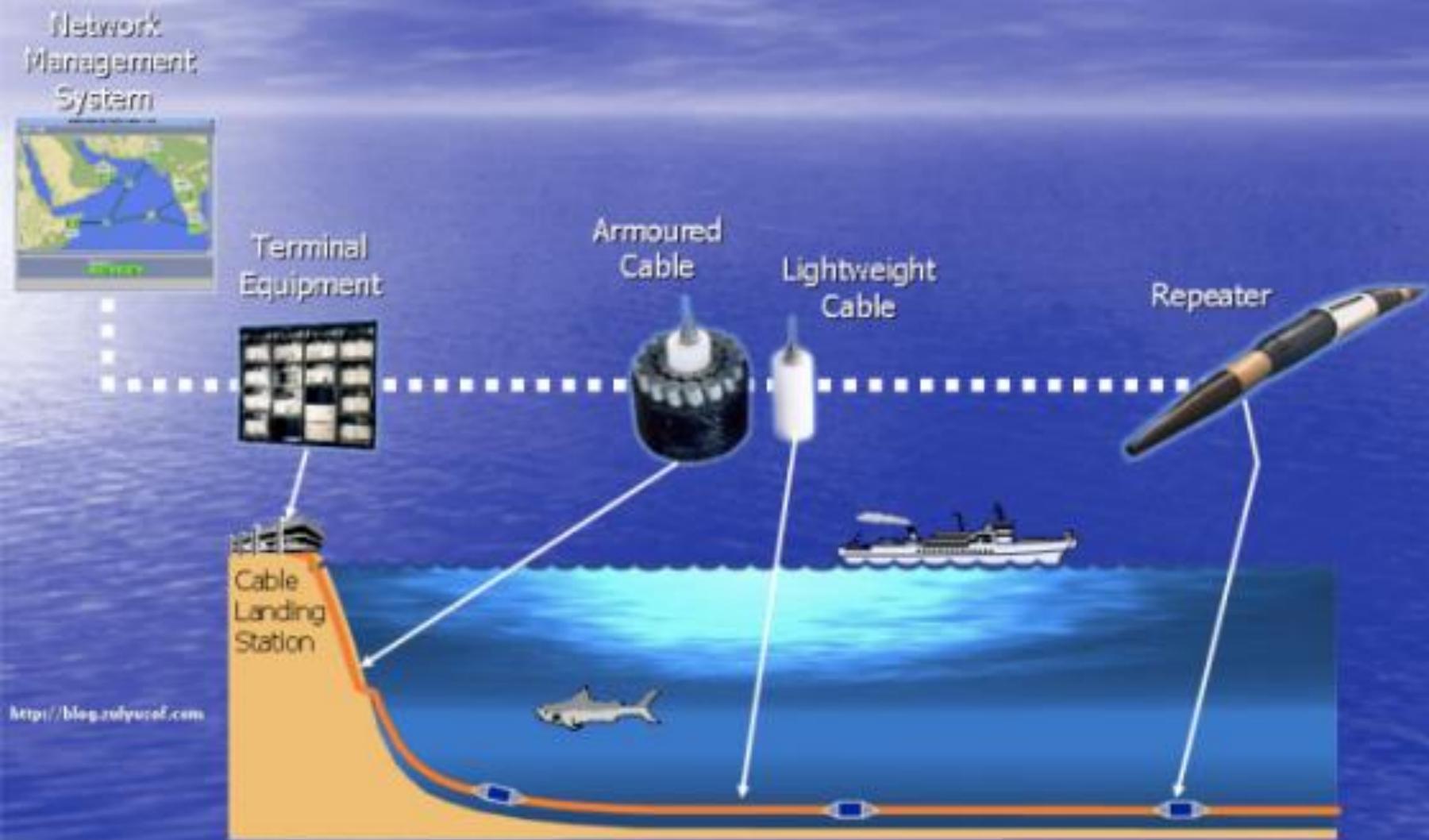
- Submarine cables are critical communications infrastructure and the backbone of the international telecommunications system
- More than 98 per cent of international Internet, data and telephone traffic are carried on submarine cables
- Submarine cables are recognized as vitally important to the global economy
- There are currently more than 250 active fibre optic cable systems connecting the world



Deep water cable Single armored cable Double armored cable



Typical Submarine Cable System



Source: U.K. Cable Protection Committee & Alcatel-Lucent Submarine Networks

Submarine Cables & Law of the Sea – Basic Principles

- Coastal States have the right to regulate submarine cables in waters subject to their sovereignty - the territorial sea and archipelagic waters
- In areas outside the sovereignty of coastal States, all States have the right to lay submarine cables - on the high seas, on the continental shelf, and in the exclusive economic zone (EEZ)
- In exercising their right to lay cable in the EEZ or on the continental shelf, States must give “due regard” to the rights and duties of the coastal State

Submarine Cables and Law of the Sea – Cables on Continental Shelf or in EEZ

- Coastal States may not impede the laying or maintenance of submarine cables on their continental shelf or in their EEZ
- The delineation of the course for the laying of submarine cable is not subject to the consent or approval of the coastal State
- Coastal States have a right to establish conditions for cables entering its territory or territorial sea

Future of Cable Industry

- The submarine cable business is changing - content providers are entering the cable business in a big way.
- Google, Microsoft and Facebook are all investing heavily in cable ownership
- Data centers being placed all over the world and there is a growing need to make sure they have cables connecting them with sufficient capacity
- As we become more and more dependent on electronic communication and data, cables will become increasingly important

Problem: Repair of Cable Breaks

- Cables are sometimes broken because of anchors, fishing activities or earthquakes
- It is important to all States served by the cable that repairs be made as quickly as possible
- Cable companies cooperate to re-route traffic on other cables when a break occurs
- Some States require permits to repair cables in their maritime zones and in some cases the permits require approval from multiple agencies and approval sometimes takes many weeks

Potential Issue: Security of Cables

- Cables are critically important infrastructure that are vital to banking and finance, public transport and defence
- A terrorist attack on submarine cables serving a country could pose a serious threat to its security
- An attack on cables outside the territorial sea of any State may not be a crime in any State
- International cooperation is required to make attacks on cables and “international crime” and to ensure that States respond to threat to cables from terrorist attacks

Issue of Governance of Cables

- Unlike ships or oil installations, there is no “flag State” for cables – cables are not registered in any State
- The law of the sea gives “States” the right to lay and repair cables, but it is “private companies” or “consortiums” who lay and repair cables
- Cable companies argue that the lack of regulation by States has promoted innovation and resulted in a comprehensive system of submarine cables that connects most of the world without any administrative costs to governments

Cables and the Marine Environment

- Submarine cables are considered to have a low-carbon footprint and a small relative impact on the environment
- The major impact of cables on the marine environment is when they must be buried to prevent damage from ships' anchors and from fishing activities
- Cables are routed around coral reefs and other sensitive ecosystems

Cables in Areas Beyond National Jurisdiction

- The issues concerning the laying and repair of fiber optic cables beyond national jurisdiction was discussed in a 2014 Workshop on the Sargasso Sea
- The Workshop Report is available on the websites of the organizers:
 - International Cable Protection Committee (ICPC)
 - Sargasso Sea Alliance
 - NUS Centre for International Law (CIL)

Cables in Areas Beyond National Jurisdiction

- ICPC has also had consultations with the International Seabed Authority (ISA) concerning the laying and repair of cables in “The Area”
- “The Area” is the deep seabed that is governed by the ISA
- Under international law The Area and its resources are the “common heritage of mankind”

Further information

- **SUBMARINE CABLES: THE HANDBOOK OF LAW AND POLICY**, R. Burnett, R Beckman and T Davenport, editors, (Brill publishers, 2013)
- **Websites of :**
 - **International Cable Protection Committee**
 - **NUS Centre for International Law**

Thanks for Your Attention

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