INTRODUCTION

This Chapter answers the question of what happens to cables that are redundant or are out-of-service, and what are the legal requirements applicable to them under international law. Before examining the legal requirements, it is helpful to understand how out-of-service cables are reused.

I. UNDERSTANDING OUT-OF-SERVICE SUBMARINE CABLES

Factors that Result in Out-of-Service Status

Commercial considerations govern when a cable’s status is changed from ‘active’ to ‘out-of-service’. These include the following factors:

- The cable system may have reached the end of its design life, which is typically 20–25 years;
- The increased cost of operating and maintaining the cable may have become such that the owners of the cable system agree to decommission it;
- The need to remove the risk of liability for sacrificed gear and anchor claims and coastal State legal requirements in territorial seas;
- Improved cable technology may cause a cable system to become non-competitive with newer systems. For example, overbuilding may have resulted in a glut of capacity on the cable route making the operation of a cable commercially non-viable, notwithstanding the fact that it may only have been used for as little as 40 per cent of its design life.¹

Frequently it is a combination of these factors that results in the cable owner deciding to decommission the cable system and change its status to out-of-service.

**Reuse of Out-of-Service Cables Commercially, for Scientific Purposes or as Artificial Reefs**

The fact that a cable is out-of-service for one purpose, such as telecommunications, does not mean that its life is over or that it has no value to its owners. In some cases, an out-of-service cable is reused for other commercial services. For example in 1988 sections of two analogue cables were reused to form a 327 km cable system between the United States and Cuba. In 2007, a section of the 1287 km Gemini-Bermuda fiber optic cable system was created by cutting an out-of-service cable outside the United States continental shelf boundary and re-laying it so as to land in Bermuda instead of the United Kingdom. By doing this the new owners were able to avoid obtaining new landing permits for a cable landing in the United States. The possibility of reusing cables in this manner has led some in the cable industry to take the view that out-of-service cables are in ‘deep storage’.

Out-of-service cables have also been reused for environmental monitoring purposes. For example, the H20 program cable is an out-of-service telecommunications cable that was sold for a token price in 1984 to Incorporated Research Institutions for Seismology (IRIS) and subsequently laid between San Luis Obispo and Oahu Hawaii in order to measure water movements and pressure. Similarly in 1988 the Hawaii-2 Observatory, used for seismology research, was installed on an out-of-service telephone cable halfway between California and Hawaii. Another section of an out-of-service cable was reused in 2007 to connect a 10 km radius sensor ring, known as the Aloha Cabled Observatory, which is used to measure temperature, pressure, current, salinity and provides video images. As described in Chapter 15, military acoustic sensor cables have also been reused to increase knowledge of marine mammals.

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5 Information about the Aloha Cabled Observatory is available at http://aco-ssds.soest.hawaii.edu/index.html (last accessed 6 June 2013). The observatory lies 100 kilometers north of the island of Oahu, Hawaii (22 45’N, 158W).