



Press Release from the ICPC

1 December 2008

The Voyage that Changed the World

On December 14, 1988 the first fibre-optic cable to cross an ocean came into service. This was a momentous event because the new technology opened the door to low cost transmission of electronic data between continents. The timing was perfect: it coincided with the development of the Internet and together these two technologies have changed forever the way we communicate, educate, entertain and conduct business.

Code named TAT-8 for **T**rans-**A**tlantic **T**elephone cable number **8**, this fibre-optic submarine cable connected the USA with France and the UK. It was laid on the seabed between New Jersey and a location off the European coast – a distance of 5846 km. From there, branch cables were connected to the UK and France to complete the installation. The project cost US\$351 million and was managed by AT&T, British Telecom and France Telecom on behalf of a consortium of over 20 major international telecommunications companies.

Using lasers to transmit information through glass fibres, TAT-8 was capable of carrying almost double the number of telephone channels as its predecessor, which relied on copper-based coaxial cable. Its installation heralded the dawn of a new era in which the capacity of the submarine cable network has grown tremendously fast to meet demand, most notably following the introduction of the Internet-based World Wide Web in 1992.

Whether it is making a telephone call, sending an email, booking airline tickets, downloading a video or searching the Internet, over 95% of all telecommunications traffic that anyone receives from overseas now arrives via submarine cable. Satellites still have an important role, but fibre-optic cables dominate because they can carry huge amounts of electronic data more quickly and at much lower cost.

With greater reliance on submarine cables there is a need for more security. Earthquakes, bottom trawl fishing and anchoring ships can damage submarine cables with far reaching effects. To enhance protection against such risks, the International Cable Protection Committee (ICPC) works with the telecommunications industry to help it improve the reliability of the submarine cable network. This is achieved through initiatives such as better cable design, better planning, cable burial and education of seabed users.

Today, about 1 million kilometres of fibre-optic submarine cables, most with a diameter no larger than a garden hose, link the international community. This network is the backbone of the Internet and so plays a vital role in everyday life. And it all began 20 years ago when cable ships were mobilised from the USA, the UK and France to install TAT-8, thus creating the first fibre-optic cable to link continents across an ocean. The rest is history.



TAT-8 cable and repeater (signal booster) about to pass through the cable laying engine on the deck of the cables ship *Long Lines*.
Image courtesy of AT&T.



Cables ship *Long Lines*, which installed the main section of TAT-8 from the USA to offshore Europe - *Image courtesy of AT&T.*