Submarine cables

Chamber

The chamber is a concrete box a few meters deep where the submarine cable is connected to the cable coming from the landing station.

Repeater

Repeaters are placed every 100 kilometers to re-amplify the light signal. Power for the repeaters is supplied by the copper conductor of the cable.

Cable ship

The cable ship makes it possible to lay the cable at the bottom of the oceans. The crew numbers around 80 people for the different missions (work on cable, navigation, rover, etc.).

Survey ship

The mission of the survey ship is to map the oceans. It also makes it possible to define the routes or to clean the route of the cable before laying.

The ship can also allow post-burying, that is to say the inspection of the cable and burying them near the coast.

To aggregation and core networks

To the arrival landing station

Landing point

A landing station is the building that processes the data stream from the cable light signal. The flow is distributed among its various destinations. It is from here that the electricity is sent for the repeaters.

Landing stations generally have their own energy system (power supply, generators, batteries, etc.).

Cable

A submarine cable is about fifteen centimeters thick when it is in shallower coastal waters because it is more often subject to accidents (caught by an anchor, caught in a fishing net, etc.).

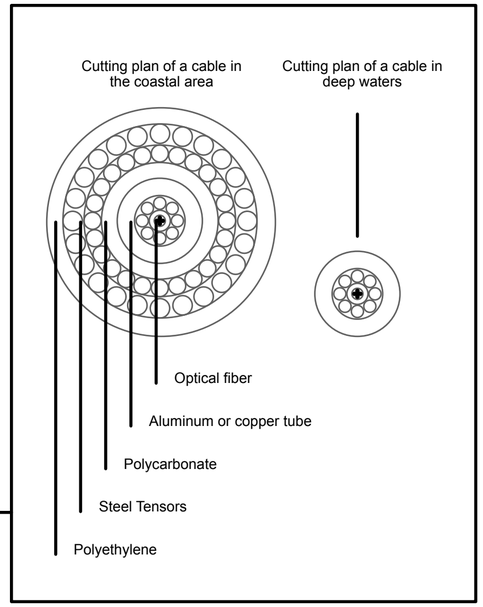
Once in deep water, the cable is only a few centimeters in diameter.

Plow

A plow is used to bury the cable a few meters deep in order to protect it from anchors and trawls in coastal areas.

Rover

A rover is an underwater vehicle piloted from the cable ship that can inspect the seabed, observe, bury and intervene on cables (attachment and cutting) up to 2,000 meters deep.



Sources: Orange Marine (data from Pierre de Fermat, Urbano Monti, Hector 7 rover and Penmarc'h landing point)

Credits : Gauthier Roussilhe