



Through rock and earthcommunication system

- * Very low frequency radio based system
- * Penetrates rock and earth up to 1000 meter
- * Possible to modulate and transmit audio signals through the system
- * Possible to align the 2 antennas through phase analyse of signals with high accuracy

Applications

- * Finding a underground point from surface through earth
- * Transmitting signals from instruments to surface with no cable and through rock
- * Talk to surface from underground in case of accidents when people are stopped to come out
- * Alignment of drilling equipment and tunnel building

Through rock communication system

This system operates on a very long wave radar technology .In the RF band we use the earth is very transparent and radio waves pass through earth and rocks without to much losses.

One transmission antenna send a signal tracked by the other opposite antenna. The distance can be over 1000 meter between antennas.

There are two main functions. One is voice transmission from sub surface cavities to surface. This is ideal as a security system in case of accidents. Here the staff in the cavity underground can speak with surface.

On version of this is also transmission of signals and slow scan video transmission like a modem.

The other function is that the antennas can find the centre very exactly. In fact we can see over long distances with less 1 meter in deviation. This makes the system perfect for alignment of drilling equipment etc. If someone want to make a tunnel to a place underground this will give the vector to follow.

Laseroptronix will offer a EX encapsulated system for coal mines fulfilling the international intrinsic safety demands. This can then be of good help if there is a mine accident to save people stopped to come out but still alive.