



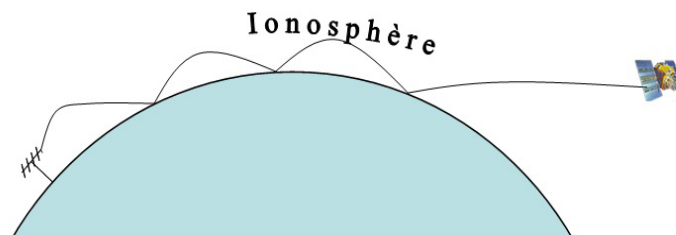
# COMMUNICATION WITH A SATELLITE THAT IS OUT OF SIGHT

*Satellite links through ionospheric propagation*

## Technological advantages

Enables links beyond the optical line of sight

Possibility of almost permanent communication with only a few ground stations



Ionosphere links with a satellite

## Summary of the invention

Principle enabling a ground station to communicate with a satellite that is out of sight through ionospheric propagation and dynamic frequency selection.

## Potential applications

Real-time surveillance of physical phenomena by responsive TT&C satellites

## Commercial benefits

Enables greater satellite availability with a reduced number of ground stations

System tested on TARANIS, whose purpose is to study transient magnetosphere-ionosphere-atmosphere coupling phenomena

*Patented invention available under licence  
TRL : 3*