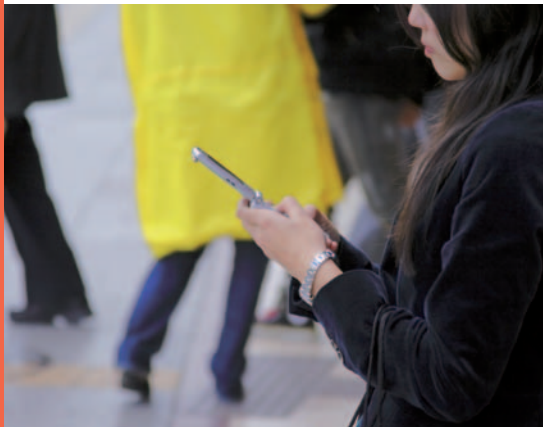




Satellite Communications in Europe

Europe is home to three of the five largest satellite system operators in the world, providing telecommunications, television broadcasting, data and mobile services world-wide. The use of satellite communications in Europe has been one of the successes of the European space activities over the last 35 years.



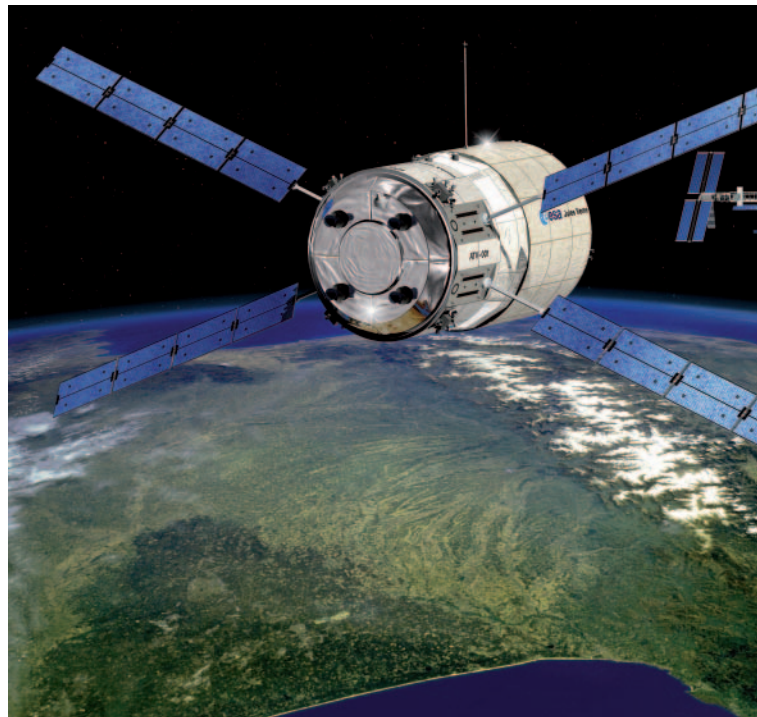
What do satellite communications do for citizens?

The lead application for communications satellite systems in Europe is the distribution of television, with in excess of 3000 channels now available from satellites run by European operators. Tens of millions of homes in Europe are able to receive satellite signals, either direct to an individual small antenna, or a master antenna which then feeds a cable system either within an apartment block or a closed development.

Satellite systems provide images of live sport events and a broad range of themed programmes, as well as a number of '24 hour' continuous news programmes sourced from the major European broadcasters. High Definition television services are beginning to become available to European homes, transmitted by satellite.

Pan-European companies make extensive use of satellite-based private data networks, whilst satellite communications systems provide an essential complement to the basic microwave and cable public telephony and data network in Europe. Satellite services are particularly important in emergency situations: floods, earthquakes, etc., when the terrestrial network has been put out of action.

Civilian communications satellite systems are also used by Europe's armed forces, ranging from 'calls home' for members of the forces, to broadband data links for forces deployed on humanitarian or peace-keeping missions. This leaves the more advanced dedicated military satellite communications systems, now widely used by European armed forces, available for the more crucial combat-linked communications.





Who is involved?

Satellite communications systems stimulate a range of industries:

- > The manufacture of satellites and their associated launcher rockets, where European constructors such as Alcatel Alenia and EADS ASTRIUM are competitive on the world market, and ARIANESPACE is a world leader in launch services for satellites; the ARIANE-5 vehicle has been optimised to place large communications satellites into the geostationary orbit they normally occupy.
- > Major satellite operators EUTELSAT, SES-Global and INMARSAT, as well as other smaller European operators, have healthy balance sheets; this is a multi-billion Euro market.
- > Manufacturers of small ground terminals and small home terminals and set-top boxes to link the satellite signal to television sets; many of the participants in this market fall under the definition of a Small and Medium-Sized Enterprise (SME).

> Television broadcasters and suppliers of television programmes, and through them suppliers of studio, media and outside broadcast facilities. This market stimulation will continue in the future, with European satellite operators preparing for the opportunity they see in the distribution of High Definition Television – the first services of which are already being initiated via satellite.

Towards the Future

European technical capabilities in satellite communications need to keep pace with global competitors. Thus, the European Space Policy foresees continued development, both via Union mechanisms such as the 7th Programme of Research and Technology Development, as well as in the context of the telecommunications and technology programmes of ESA (European Space Agency). This will include improvements in technology, new system design capabilities as well as demonstrations of innovative services and improved satellites.

More information at:
<http://www.esa.int/esaTE>
<http://www.esoa.net>

