

Satellite Communications For Aid And Emergency

About ESOA

The European Satellite Operators' Association was formed in March 2002 to represent the interests of the industry with the European Commission, Parliament, Council and the European Space Agency as well as other international organisations, national governments and regulators. ESOA's goals include ensuring that satellites benefit from the appropriate political, industrial and regulatory environment to fulfil their vital role in the delivery of communications. ESOA is governed by a Board of Directors made up of the CEO's of its Member Companies.

The activities and other details about the ESOA can be found at www.esoa.net. Members of ESOA are: EADS SPACE Services, Eurasiasat, HellasSat, Hispasat, Inmarsat, SES New Skies, SES Sirius, SES GLOBAL, Telenor Broadcasting Holding and Telespazio. Arianespace, EADS SPACE and International Space Brokers are Supporting Members of ESOA.

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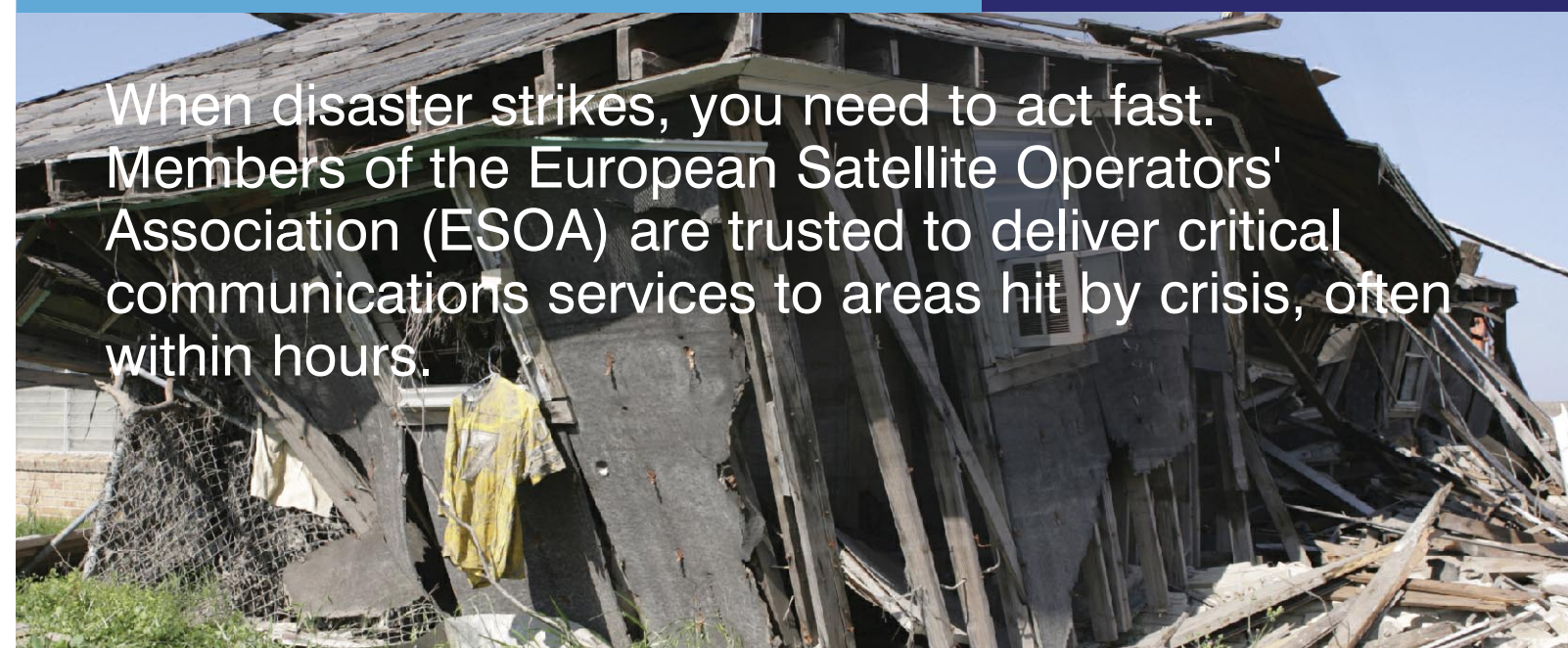
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Satellite Communications For Aid And Emergency



When disaster strikes, you need to act fast. Members of the European Satellite Operators' Association (ESOA) are trusted to deliver critical communications services to areas hit by crisis, often within hours.



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Just when you need them most, terrestrial and cellular networks can be among the first casualties of a disaster. But if you can't access a communications infrastructure, how can you co-ordinate an effective response?

Establishing a communications zone is a major enabler in the management of humanitarian aid and emergency response operations. Thanks to the cooperation between ESOA Members and government agencies satellite communications play a critical role in establishing essential links for first responders and relief agencies within and beyond the affected area, and deliver communications services that can make a real difference to the disaster's victims. For some it is, literally, a life line.



An Instant Infrastructure

Even an established and sophisticated ground infrastructure like telephone lines and local wireless networks can be entirely knocked down or damaged in a disaster, rendering previously trusted communications services useless. This was shown during Hurricane Katrina in southern U.S.A. Unlike terrestrial networks, satellites have almost complete immunity from catastrophic events such as hurricanes, floods, and earthquakes.

From their safe vantage point in space, satellites can simultaneously link several points on the ground, mobile and fixed, which may be thousands of kilometres apart. The advanced technology of modern satellites can deliver on-demand voice and data connectivity of consistently high quality, and communications that would otherwise have taken days can be achieved in a matter of seconds.

Satellite communications offer a range of solutions to meet the immediate and on-going needs of humanitarian aid and emergency response - whether it is telephony and high-bandwidth data access offered by a fixed service in a permanent location, or the flexibility of a mobile service that can be used on a ship, plane, road vehicle or on the move with a hand-carried satellite terminal.

A Critical Infrastructure

Logistics support

One of the key uses for satellite communications by first responders and aid agencies is logistical support. To assist with the co-ordination of relief efforts, satellite communications provide vital voice and data connectivity - the latter including email, instant messaging, internet access, videoconferencing, and secure LAN connectivity. Many satellite communications solutions are interoperable; not only does this allow the integration of different systems, but it also enables emergency responders to use the standard equipment - radios, mobile phones and PDAs - with which they are familiar.

Welfare

Compounding the problems faced by victims of a disaster is their sense of isolation. Often what they need most is the ability to contact family and friends, to hear a familiar voice and give reassurance. Satellite communications provide these essential links; remote communications centres can be established quickly, offering telephony and email access directly to the people affected most.

Telemedicine

Telemedicine puts the resources of world-class trauma specialists and surgeons at the disposal of medical teams battling minutes to save lives in the field. With voice and broadband data connectivity via satellite, doctors can share real-time medical data such as electrocardiograms (ECGs), blood pressure, temperature, x-rays and even live high-definition video images of the patient. It speeds diagnosis and treatment, and provides much-needed additional support to the medical resources within the affected area.

Media coverage

Although not an essential element of emergency response, the media coverage of a crisis can often make a significant difference to the level of that response. Sharing stories and images from the disaster zone can raise public awareness and generate worldwide support. Satellite communications provide the networks to deliver immediate media coverage from crisis-hit areas, and "live by videophone" media reports from disasters are seen on television screens around the world.

Continuity of Business

Often forgotten but most relevant is also the impact a disaster can have on the retail sector of the economy. Continuity of business in the retail sector is vital to the economy and orderly functioning of society. If one asks how long a company would survive during and after a natural or man-made catastrophe or what plans companies have to get their business up and running again in a short period of time after a disaster, there may often be no answer.

The economic damage from Hurricane Katrina in New Orleans in the US was over a \$100 billion. Even for businesses, satellites can form the essential communications component to enable them to continue after a disaster.

A Proven Infrastructure

The members of ESOA work with the European Union, United Nations, and a large number of Non-Governmental Organisations (NGOs) to ensure that satellite communications provide a rapid and reliable network to assist in humanitarian aid and emergency response operations. ESOA members have a proven track record of delivering connectivity wherever and whenever it is needed.

Lebanon, 2006

During the recent conflict in Lebanon, satellite communications provided essential support to the aid agencies working in the region, and the many Lebanese and Israeli people affected. Télécom Sans Frontières (TSF), a specialist in re-establishing telecoms services in crisis-hit areas, worked with an ESOA member to deploy voice and data communications via satellite. Appointed by the United Nations, TSF supported the relief effort by establishing two telecoms centres in Saida and Tyre, providing telephony, email, internet access, fax and IT support to the aid agencies and Lebanese NGOs.

In the month that TSF was operating in Lebanon, nearly three gigabytes of data was transmitted over satellite, and over 1,850 minutes of voice calls were made. Three-quarters of voice calls were international, many of them from people contacting families overseas.

TSF supported 22 aid organisations and helped over 600 families. Julien Harnes, a team leader for the UN children's fund, Unicef, said, "TSF provided an excellent service essential to the implementation of the humanitarian hub in Tyre. The telecom centre enabled us to reach and coordinate NGOs on the ground better."

U.S.A, 2005

When Hurricane Katrina hit the southern states of the U.S.A - particularly the states of Louisiana, Mississippi, and Alabama - the telecoms infrastructures were rendered inoperable almost immediately. As the extent of the damage caused by Hurricane Katrina became clear, numerous ESOA members responded rapidly to meet greatly increased demand for satellite communications equipment and airtime.

ESOA members reallocated satellite capacity to make additional channels available in the disaster zone, ensuring that users experienced the best possible levels of

service to support the relief efforts. Terminals capable of delivering voice and data communications were providing to agencies on the ground - including FEMA, State Police, National Guard, Red Cross, and other federal, state and local bodies. Over 20,000 additional terminals were provided, supporting situational awareness, command and control, and relief and recovery efforts that would last several months following the hurricane.

Members of ESOA are now working closely with the government organisations responsible for hurricane preparedness, to ensure that satellite communications - with its key advantages of reliability, flexibility and interoperability - are more fully integrated into future communications toolkits.

South Asia, 2004

Severe damage to local infrastructures was also a feature of the tsunami in south Asia, which affected parts of Indonesia, Thailand, Sri Lanka and India. An ESOA member worked with the AirPutih Foundation in the Aceh region of Indonesia, providing emergency telecom facilities and a media/internet centre for news updates from the area. The broadband data terminals allowed data exchange over a wide area, and enabled relief workers to access information on the many thousands of homeless people, the identification of serviceable roads and transport routes, and other critical data; all achieved at speeds comparable to a European domestic broadband connection, in a region that had just experienced a catastrophic event.

The satellite communications provided to AirPutih supported over 30 organisations, including the UN Office for Humanitarian Affairs (UNOCHA), the UN Development Programme (UNDP), and many other international, national and local agencies. The system also supported the USNS Mercy, a hospital ship that used a wireless internet connection, via satellite, to help expedite the transfer of patients' medical information, becoming the primary means of communication, enabling lives to be saved.

Many ESOA members provided vital communications services during the tsunami relief efforts, and they continue to work with regional agencies in the reconstruction and rehabilitation operations and in establishing early-warning systems.

Policy-Making

All over the globe, satellite providers are speaking on industry panels, participating in government-industry working groups and conducting media interviews to educate authorities on proper selection and use of satellite systems and solutions. In addition, international

organizations, such as The United Nations, have asked satellite operators to participate in disaster management forums. Satellites are now being recognized as the critical infrastructure nations can rely on when in crisis. Governments, citizens and businesses alike need a robust communications capability that does not rely on traditional wireline, wireless, or internet modes.

ESOA wishes to ensure that adequate visibility and priority be given to satellites in policy-making. Member Companies will continue to support all efforts requiring satellite capacity and services. Nevertheless public support and awareness is crucial to their ability to do this.

