



Helping devastated areas

Over the past few years, the world has suffered a series of natural and manmade disasters and acts of terrorism that have left mankind feeling vulnerable. In the aftermath of these disasters, satellite communications prove themselves time and time again to be invaluable. Here, we establish why and look at the systems that help devastated areas get back on their feet.

According to the ITU, in 2006 alone, 21,800 people succumbed to natural disasters, with 95 percent of those killed residing in least developed countries. US\$65 billion of economic loss was recorded worldwide.

Meeting the requirement

The Indian Ocean tsunami, the 9/11 attacks on New York and Washington DC, earthquakes in Peru and Pakistan, hurricane-driven storm surges in the United States, flooding across the belt of central Africa – just a few examples of disasters in very recent memory. Importantly, the natural events amongst these are tipped to become increasingly frequent and more intense as a result of global warming processes. In addition, humans seem to remain as committed as ever to the misery caused by armed conflict.

In either type of disaster immediately available, highly reliable and easily deployable communications are of paramount importance. Without them, the urgent connectivity requirements of both the relief organisations deployed to provide assistance and the disaster victims cannot be met. Communications infrastructure must be quickly available to allow the flow of information in and out of the disaster zone quickly, easily and efficiently, with accessibility assured at all times.

Government emergency management administrations and businesses alike are now putting disaster preparedness at the top of their action lists. Lessons learned from past events have ensured a focus on proactive planning before any disaster that may occur, with protocols and procedures in place and well-practiced by fully trained personnel. Purely reactive responses – that is, waiting for a disaster to happen – are a thing of the past. Businesses, in particular, increasingly require backup or 'fail-over' systems in the event of terrestrial infrastructure failure in order to guarantee business continuity. Obviously, many kinds of disaster will always remain unpreventable – and many of their consequences beyond human control – but systems can be put in place to help deal with, and mitigate, their effects. Such systems are inevitably communication-based. If commu-

nications are not restored as soon as possible, lives may be lost, economies severely disrupted and the poor and vulnerable will be further weakened.

Indeed, in those instances where the area hit by a disaster is poor and any existing communications infrastructure is either unreliable, or destroyed by the disaster itself, an alternative solution to support communications requirements must be deployed – precisely when the dissemination of information is the most critical.

The solution - satellite

It cannot be disputed that satellite-based solutions are often the only option available in times of such crises. Satellite technology facilitates the re-establishment of communications and is the most readily usable means of communications under disaster conditions because:

- As noted above, disasters will often render unavailable any pre-existing terrestrial communications infrastructure, leaving no locally-based means of communication available to first responders arriving on the spot. Satellite communications equipment may be easily transported to the area where they are required and deployed extremely quickly, often within minutes, so that communications are restored. The size and weight of much modern satellite terminal equipment enables it to be flown and/or driven to its destination;
- Satellite communications creates an independent and instant infrastructure. Once deployed, via a VSAT star or mesh topology, a network is instantly established;
- A satellite network is a reliable network. Due to the ubiquity of the satellite footprints of Geosynchronous (GEO) and Low Earth Orbit (LEO) platforms, coverage of affected areas across almost the entire Earth surface is available regardless of geographic location or terrain;
- Satellite terminals are purpose-built to be robust enough to withstand even the harshest of physical conditions; and
- Satellite may provide narrowband and broadband IP communications to support voice, data and video requirements across a disaster zone.

Rescue and rehabilitation

The strategic decision to deploy satellite-based communications solutions in order to provide connectivity for disaster-hit areas is more often than not, the only practical one. Versatile, robust, flexible, accessible, easy to deploy – satellite addresses all the principal immediate imperatives. Moreover, satellite plays-out its mission-critical role right from the immediate aftermath of a disaster right to the conclusion of recovery operations, when months may have passed. Satellite can even help with longer-term recovery and help to introduce new economic activity and prosperity to an affected region as the newly established networks can leverage the provisions of the United Nations Tampere Convention and open doors to investment from the rest of the world.

The initial lifeline that satellite communications provide in the post-disaster environment is essential and invaluable not just to those working in an affected area but even more so to those who have to continue to live beyond the devastation. ●

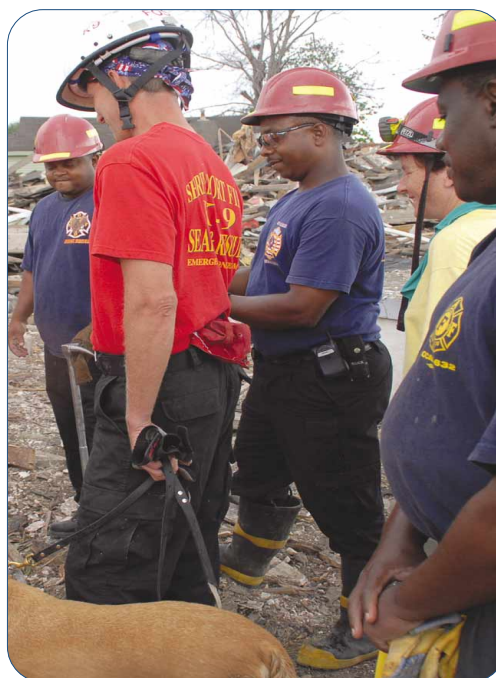


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