



ICARUS: European Framework Program Project for Disaster Recovery Automation and Prevention with unmanned machines where Integrasyms managed the communication infrastructure and fast deployment tools.

The role of VSAT in disaster recovery

Connections in a disaster situation really can be a matter of life and death. So much so that a great deal is being invested into new technology to get disaster response teams and the general public connected, and fast.

When a disaster strikes, there will often be multiple agencies involved in the relief effort. This means that there is an urgent need for coordination between these different agencies, in order to ensure that those there to help know exactly where that help is needed and that resources are being used in the best way possible. The only way to do this effectively is by having a good communication infrastructure in place. Teams on site also need to communicate with their colleagues outside of the disaster zone to communicate what additional support is required, whether that be in the form of additional teams or the delivery of provisions, for example.

With mobile networks often going

Satellite communications, and in particular VSAT systems, have an important role to play in disaster recovery and emergency response. Naturally, the very nature of a disaster means that it is impossible to know when and where it will occur, and very often it is in a location with little or no connection infrastructure. Of course, even if there was previously a connection, the disaster can very often disable that. Being able to enter a disaster zone with all the equipment to quickly get connected can seriously impact the number of lives that can be saved, and VSAT technology is the key to enabling that. Here, Alvaro Sanchez, Director of Sales and Marketing at Integrasyms, outlines the role of VSAT terminals for emergency communications in times of disaster.

down in an emergency, giving the public a connection can often also be a factor, ensuring that they can get help to them and each other as and when needed, as well as communicating with friends and families elsewhere to reassure them. It can also be about the disaster response teams being able to communicate with the affected public to

ensure that they remain informed and also know of any particularly dangerous areas to avoid, for example.

News coverage from disaster scenes is a crucial element. After all, it is widespread news coverage that promotes emotion and often a response in the general public right across the world. In-depth global coverage from

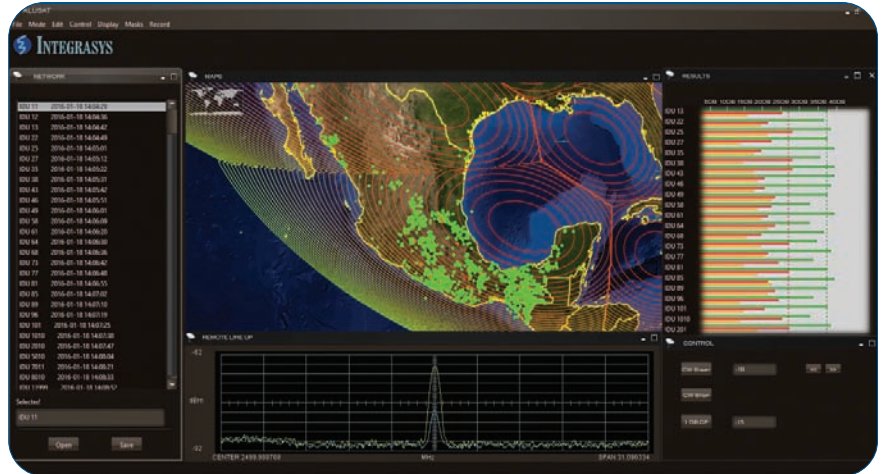


Alvaro Sanchez, Director of Sales and Marketing at Integrasys

disaster scenes is often met with crowdfunding on a massive scale, enabling those charities and organisations working in the field to help people affected by the disaster much more extensively and quickly. And let's face it, that is what will ultimately save lives.

The VSAT challenge

Very small aperture terminals (VSATs) are often the only way to communicate from within a disaster zone. The emergence of high throughput satellite (HTS) has made VSATs much more efficient and reliable. Small antennas and equipment are relatively easy to transport to even the remotest area, and connection is possible anywhere in the world. Technology has come on a great deal, meaning that, if the antenna is well



At Satellite 2016, Integrasys released a new solution, Alusat

aligned and the team is trained to operate the equipment, getting a connection can be extremely quick.

However, whilst VSAT naturally brings a wealth of critical advantages for disaster recovery, it is not without its challenges. One of those is the very fact that other communications infrastructure will generally not be in place, either due to the nature of the location or because the disaster has caused a breakdown in any existing infrastructure. Disaster teams may have to travel long distances to reach the disaster zone, whilst carrying sensitive equipment, and when they arrive with no existing communications in place, they are on their own in terms of getting that equipment setup and ready to go.

This is further amplified by the fact that most disaster recovery teams are unlikely to be highly trained in satellite communications, which means that the margin for error is high. A slight

misalignment of the antenna can cause a multitude of problems and lead to an unstable or no connection and a great deal of time spent trying to get that rectified – time which should be spent saving lives.

Getting online

It is clear that getting connected fast can make a huge impact for disaster recovery efforts. There are two main ways that we, as an industry, can ensure that happens.

The first is through better, more automated commissioning tools to reduce the possibility for human error and subsequent issues, such as connectivity losses or satellite interference. Integrasys has developed smart tools to make it much easier for VSAT to fulfil the connectivity need in these critical environments by simplifying the installation and commissioning with Satmotion Pocket.

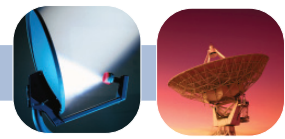
Today, a remote could be commissioned in one minute with optimal performance and minimising any interference. Integrasys actively works with the Satellite Interference Reduction Group (IRG) to develop new solutions that solve interference challenges. The company strongly believes in giving operators the right tools to make antenna alignment in the field simple, quick, and error-free.

The other way is with automated maintenance tools, controlling networks in the region affected. By controlling networks within this region after the disaster happened, we can be sure which remotes should be revisited and which ones do not need revisiting. At Satellite 2016, Integrasys released a new solution, Alusat, that enables customers to perform an unmanned RF



The company strongly believes in giving operators the right tools to make antenna alignment in the field simple, quick, and error-free.

Disaster Recovery....



check on the overall network and ascertain which remotes have been de-pointed or degraded and which ones could be used for recovery purpose already installed on site. Alusat can even recover out-of-service remotes without the need of an installer on site.

Moreover, Integrasys can also ensure a quicker and smoother connection through training. If all the people responsible for operating satellite equipment in these situations were kept up-to-date with the latest training, they would be much better

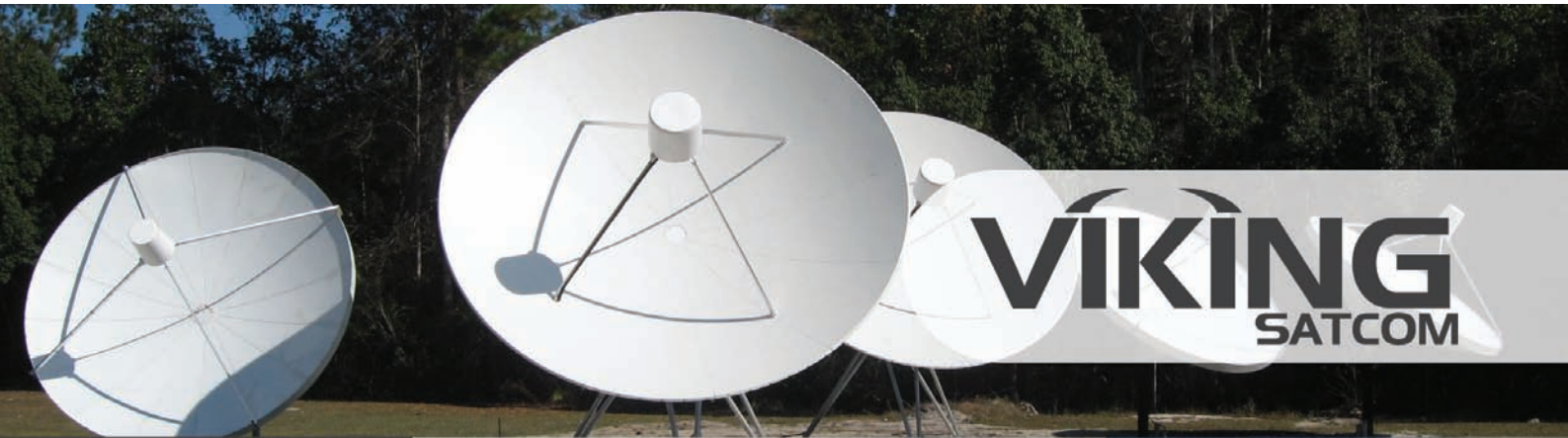
equipped to deal with any issues they may experience in the field. Integrasys has worked with the Global VSAT Forum (GVF) to deliver training sessions along with other satellite companies to various satcom users. One example is an eight-day project with twenty-one militaries in the Asia-Pacific region or the interactive GVF 514 Satmotion training on-line. These trainees gained valuable knowledge and understanding of satellite operations and equipment, which certainly will have made them much more efficient in their day-to-day operations involving satellite communications.



ViaDireta: ViaDireta uses Satmotion to deploy much quicker in difficult areas and situation within the Amazonas region.

Saving lives

When it comes to disaster recovery, it will always be about saving lives. Satellite technology is helping those agencies working in disaster zones to do that faster and much more effectively than ever before thanks to smarter tools which automate the difficult processes in order to solve the challenges facing our industry. ■



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Phone: 517.629.3000

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info@vikingsatcom.com

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