



Natural disasters often damage the critical communications infrastructure needed to help coordinate a relief effort for those affected by the devastation. A High Frequency (HF) network is the only infrastructure independent communications solution that can provide support to natural disaster relief efforts.

Problem

Natural disasters are frequent and devastating. They leave communities isolated and damage the critical infrastructure needed to provide aid to those affected. Communications towers are often damaged as a result of a disaster, with the physical damage to their infrastructure rendering them unable to provide the critical communications so desperately needed. Without communications, aid providers can't coordinate their efforts and contact remote and isolated communities affected by the disaster.

How we solve the problem

Unlike conventional, VHF/UHF, cellular and satellite telephony, which all rely upon land-based infrastructure, a HF radio network requires no fixed infrastructure. As such it is often the only reliable means of communication when disaster strikes.

Communications over HF simply requires a HF radio and antenna at each location. No other fixed infrastructure is required, using the ionosphere to send radio signals thousands of kilometres if required. The unique nature of HF radio is such that it can be deployed in any location, establishing a communications link with any other HF radio on the network, no matter where in the world they are located. The link can be purely radio signal or with recent advancement, the radio signal can link into an IP

network for greater penetration to HF users on the network.

The software defined radio's easy-to-use interface makes using it as simple as using a cell phone, allowing a user to make calls and send messages intuitively. Teamed with Codan's unique Digital Voice technology, the HF radios provide clear and reliable voice communications, with voice clarity comparable to a cellular network.



The HF radio's deployable nature enables a base of operations to be established at any location, with preconfigured radios deployed outward to remote locations — all talking back to base and with each other to coordinate a relief effort. In the case of disasters, aid workers are able to travel to harshly affected locations and relay aid requirements back to base to support the local community.



A unique feature of Codan HF radios is the advanced features for email and image upload. Photos of the area can be taken and uploaded to an email client on a laptop connected to a Codan HF radio. Using the HF radio link, the images can be sent back to base to provide complete situational awareness of the devastation and the help needed.

In addition, should aid workers have their own emergency during the recovery, the Codan HF handset has a one-touch emergency button. When activated, this will transmit GPS coordinates to enable base operations to pinpoint the location of their personnel, giving them the ability to track agents' movements and dispatch assistance to their exact location.

To ensure the availability of the HF radio network, vehicle deployments source power directly from the vehicle battery and remain operational even when the vehicle is switched off. Radios installed in base operations can be connected to a power supply with solar power backup to ensure the continuous operation of the radio during disaster recovery.

When configured in a system with Codan's robust antenna and mast solutions for base and mobile operations, Codan HF radios provide the most easy to use and reliable solution for providing aid anywhere in the world.

