

CASE STUDY

G8 Summit in Heiligendamm:

Mobile communications van supporting first responders via satellite

Background

When during the G8 Summit in Heiligendamm, Germany, from June 6-8, 2007, the Heads of State and Governments from the Group of Eight leading industrialized nations held their annual meeting, more than 500 volunteers from the German Federal Agency for Technical Relief (THW), Germany's official civil state disaster protection organization, provided their technical assistance. During mega events, THW staff members, together with fire departments and mobile medical units, usually ensured smooth operations among all responder teams.



Mobile communications van with THW first responders in Heiligendamm

As part of the G8's security concept, the THW's first responders were on site to support fire departments, the German Federal Police and the German Federal Foreign Office in activities such as communication, electricity supply for field hospitals, illumination of operational sites, e.g. airport and helicopter airfields, security fencing and mobile

checkpoints, logistics and maintenance of the infrastructure.

The issue

In the event of a crisis or disaster, it is of utmost importance for the officer-in-charge of first responders, such as the THW, to be informed to the point, with all required details up-to-the-minute to make a systematic, sustainable decision. For this reason, the THW staff members in Heiligendamm were connected, via satellite, to their headquarters in Bonn to constantly assess the situation, report back to headquarters and authorities, and be prepared to react in case of emergency.



First responders in communication and control center in Heiligendamm

Why satellite?

The THW's operation site in Heiligendamm offered neither terrestrial lines nor reliable, permanently available GSM connectivity. Satellite communications made first responders on site independent from any traditional terrestrial telecommunications

infrastructure or radio link system. Moreover, for a short-term mega event, such as the G8 Summit, when additional and secure communications equipment is only needed for a limited time, communication via satellite allows for the most mobile, cost-effective and flexible infrastructure. The setup of a complex and expensive conventional communications infrastructure for a single use is no longer required.



THW's remote operation site in Heiligendamm

In general, a satellite link is the only means to guarantee reliable communication under all circumstances even if the terrestrial infrastructure fails due to technical problems, a natural disaster or, in the event of a governmental mega event, a potential politically motivated threat.



Mobile communications van – entrances to communication and meeting rooms

From a box wagon to a mobile emergency control center

Together with the international fire and rescue equipment supplier Gimaex-Schmitz, ND SatCom equipped a mobile communications van supporting the THW's need for onsite telephony (VoIP), Internet access and data exchange via satellite. The mobile communications van is based on a Mercedes Benz box wagon and offers first responders a communication room and a meeting room with projector and screen equipment.



Mobile communications van with SkyRAY Light 1200 antenna subsystem

The satellite link SkyWAN® as the technology of choice

The satellite communications equipment employed is based on ND SatCom's core technology SkyWAN®, a versatile MF-TDMA VSAT system which enables various end-user communication applications. SkyWAN® offers instant bandwidth-on-demand through dynamic bandwidth allocation. The THW command center in Bonn and the mobile unit in Heiligendamm were equipped with compact fixed and mobile satellite terminals using SkyWAN® Indoor Units.

The network between Heiligendamm and THW's headquarters was established by ND SatCom's SkyRAY Light 1200 antenna subsystem, which was integrated into the communications van. The antenna subsystem is robust, quick to deploy and easy to use – features which are of utmost importance for critical and secure government applications. In addition to the plug & play concept, antenna pointing is based on ND SatCom's Antenna Pointing System, which works by a one-button operation and is suitable for non-technical personnel.



First responder points the antenna

Benefits and user feedback

With its disaster response vehicle in Heiligendamm, the THW disposed of an autonomous communications site providing first responders on site with flexibility in changing circumstances, an always-on network and a variety of office communication tools for its tasks during the G8 Summit. Via satellite link, the system offered full office communication capabilities with up to 96 telephone extensions (transmission speed 0.8 Mbit/s) and one data line with download speeds of up to 2 Mbit/s.



THW first responder on site

“We got very good feedback from the THW users. The first responders, all volunteers and not satellite communication professionals, pointed the antenna by pressing a button, were on air within minutes, and started telephoning and accessing their home databases. Georef-data, press reports, satellite maps, radio recordings, pictures and mission data were transmitted to THW's headquarters in Bonn,” reports Ulrich Kiebler, VP Government & Commercial of ND SatCom.

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