

Emergencies are just what Sweden's TETRA-based Rakel network was designed for and there is no hotter emergency than a huge forest fire. Despite the great challenges and immense danger, TETRA's versatility allowed the network to cope.

hen Sweden's largest forest fire in more than 40 years broke out in the country's Västmanland, firefighters and MSB, the operator of the country's public safety network Rakel, knew they had a major challenge on their hands. Breaking out in an area only 140 kilometers north of the capital Stockholm and caused by the

heatwave sweeping Northern Europe, the fire spread until it raged over some 15,000 square kilometers, an area more than a quarter the size of Switzerland.

The fire killed one man and seriously injured another, while a number of properties were also destroyed. Clearly, firefighters faced a huge task in tackling this dangerous fire and stopping it causing even more injuries and damage.

The fire crews were of course greatly assisted by the country's Rakel network, which had the versatility to cope with the rapidly changing conditions caused by the fire.

Anders Grundin, Rakel project manager at MSB, says: "Technically, Rakel worked extremely well during the operations. On the other hand, people had some challenges with working methods, for example when it came to communicating between the different organisations on site."

"When we saw the fire start to escalate, we set up extra monitoring on the Rakel base stations in the area affected. Several base





stations were upgraded to handle double capacity, allowing us to manage the increase in traffic. We also set up a depot stocked with spare Rakel parts in the area and a mobile base station was made ready so it could be used if any of the regular base stations in the area were damaged. Luckily, however, the spare base station was not needed," says Grundin.

MSB lent around 40 Rakel radios to staff at the site, to make it easier for them to communicate. MSB also supported the fire crews by answering many technical questions about Rakel.

The terrain in which the fire spread is very hilly, which meant that the radio coverage was not perfect. But even in patchy coverage areas, people could still communicate over Rakel. For example, there was the possibility to use a strategically placed vehicle-mounted Rakelmobil, which in Gateway Mode, allowed users to stay in contact with the Rakel network.

Added Grundin: "We will make a deeper evaluation of Rakel's ability to function during the operations so we can learn from this before we encounter similar situations in the future. We also intend to improve the national guidelines for cooperation over Rakel."