Sweden

Delivering data to fight wildfires and protect forests in Sweden

Geographical information and maps provided by the Swedish Mapping, Cadastral and Land Registration Authority (Lantmäteriet) are playing a key role in fighting wildfires.

Almost 70% of Sweden is covered in forest, which is a vital component for the Swedish economy. In 2014, a raging forest fire resulted in 35,000 acres of ground being burnt down. Evaluation of the rescue work concluded that there were some deficiencies in the geographic support: Lack of geodata; use of different geosupport and coordinate systems; and no ability to ensure paper maps for planning and field support.

Four years later, in the summer of 2018 which was extremely dry and hot by Sweden's standards, four major fires and 70 smaller ones ignited across the country, covering a total area of 60,000 acres.

The biggest impact of these wildfires was felt in the area of Ljusdal in the middle of Sweden and the local authorities needed extra help to manage the crisis. Knowing that Lantmäteriet provided such capability to the Swedish Armed Forces (SweAF), the county administrative board asked for GIS operators to work with the crisis management staff in Ljusdal (Färila).

The Swedish Civil Contingencies Agency (MSB) then started to coordinate the response by asking governmental bodies in what way they could give their support. Following a request by Lantmäteriet, MSB formally requested that the SweAF deployed the Geocell system manned by Lantmäteriet, personnel. The Geocell provides operation-specific support at crisis response and management sites, including geographical information and map products for managers, field personnel, and, under certain conditions, technical systems. A quick positive response made it possible to deploy the Geocell and make it fully operational at the regional crisis management headquarters in Färila after just 24 hours.

From this point, the status of the fires was put on designated maps, creating one single source of correct information. The printed maps were produced in large quantities and shared at the briefings so that everyone involved used the same relevant information. The adding of a common coordinate system to the maps made coordination of the firefighting easier and more effective.

As a result of this experience, Swedish authorities now believe they are better prepared for similar situations in the future.