

# Fire types: a tool to plan and manage emergencies

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## **Resumen**

In 2006, the leadership of fires received the support of fire simulators like FARSITE (Finney, 1998), tools to calculate probability of behaviour like FLAMMAP (Finney, 2002) and other GIS tools. Implementation in suppression is performed by high commands in advanced controls or plan chiefs in ICS, but it is difficult due to the rapid speed of large fires; even in prevention there are difficulties with implementation due to the definition of the basic data, the lack of experience or the difficulties in adjustments. Other tools have been developed in the interpretive level on the fire line, like CPS (Campbell, 1995).

Over the past five years, the Firefighters of Generalitat de Catalunya developed a new tool based on 2236 Catalanian fires, each of which exceeded thirty hectares, from the past fifty years. Meteorological, topographical, vegetative, fire motion and fire front dynamic parameters were examined for each fire. From this examination, fourteen types of propagation were identified and are grouped into five large groups. These groups are synoptic wind, storms, hot air mass, topographic and miscellaneous. With this information, a catalogue of spread patterns was developed with the objective of catering to initial attack units, fire managers and prevention planners,

The catalogue's users can perform spatial analysis to describe the geographical zone of each fire type. Thus daily with this catalogue, factors of each zone are codified, and the type of fire expected in each zone is described. Resources and strategies are preplanned, according to the fire expected. The operations of the fire can be predicted with technical and valuable criteria. Furthermore, it has become a tool to establish a dialogue between the intervention and the prevention organizations and also to identify and describe necessities for specific types of fire spread, but not for "fire" in general. This tool has been in use in Catalonia since 2003 and is shown to be effective in initial attack, extended attack, planning the fire season and during the design of prevention.

**Thematic session: Seguridad en la extinción de incendios forestales**

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