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- applications and services

Thunderstorm risk monitoring service

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The SIGnificant weather Object Oriented Nowcasting System (SIGOONS) is based on a scheme combining forecaster's expertise and observation data advanced automated processing ; it is an object oriented system for detection and forecasting significant phenomena at a few hours range. Downstream, SIGOONS feed warnings automated generation. Today, SIGOONS manages thunderstorms only.

SIGOONS development follows two streams:
o Operating a "fully automated" SIGOONS to produce thunderstorm risk warnings, in order to demonstrate the capability of warnings service for Météo-France customers at the short nowcasting range. At this stage of automation, warnings are limited to a range of one hour.
o Ensure interaction feasibility and efficiency to match forecaster's expertise on thunderstorms forecasting, for improving warnings timeliness, intensity and location.

The 2009 SIGOONS schedule was populated by the marketing of the thunderstorms warnings service named "Thunderstorm risk monitoring service" and by experiments with the seven regional forecasting services in real-time to assess adding expert value to warnings.

Beyond, the goals are to operate thunderstorms expertise routinely using SIGOONS, to improve automation in thunderstorms description using new radar data (3D, doppler, polarization data) and mesoscale numerical weather prediction data, to introduce a probabilistic description of warnings location and intensity, and to manage another phenomena, namely the strong wind events.