



The KNMI Weather Alarms

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In 1999 The Dutch Weather Service KNMI started disseminating the Weather Alarm, a special warning for the General Public in case of severe weather events. These warnings are issued 0 to 24 hours in advance for weather phenomena with a spatial scale of about 50km, which are expected to cause major disruption of society. The weather phenomena are: thunderstorms, heavy precipitation, wind, wind gusts, black ice and/or snow

The criteria are chosen in such a way that, on average, no more than 5 to 10 times a year a warning has to be given.

In 2005 the system was redesigned after an evaluation with the most important stakeholders (public transport and road management organisations, national police, commercial weather providers). Several issues were addressed:

1. The conversion of the probabilistic meteorological information into warnings,
2. The distinction between meteorological assessment and the impact of the warnings,
3. How to assist the forecaster in making such an important decision which has a major impact on society (The National Rail Company for instance once decided to stop the entire rail system during an alarm).

The warning system was adjusted in various ways:

1. Criteria were adapted
2. A pre-warning was introduced, in probabilistic form (when the probability is larger than 50%) for the range 12-24 hours in advance. The final alarm is issued when the probability is more than 90 % (0-12 hours in advance).
3. An 'expert team' was introduced which gives meteorological feedback to the forecaster but also considers the possible impacts on society. The final decision is taken by the entire team.

In this talk we will present a short history of the Dutch Weather Alarm system and discuss our experiences over the last 7 years.