



Tailored fog climatology for Amsterdam Airport Schiphol

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Like many airports, Amsterdam Airport Schiphol is vulnerable to climate change. The airport is situated in a complex and fragile urban area where fundamental changes take place in design and use of the region. To maintain its competitive position, the airport is beginning to respond to changes in weather and climate by formulating adaptation strategies, based on tailored climate information.

The Royal Netherlands Meteorological Institute (KNMI), Amsterdam Airport Schiphol (AAS) and Air Traffic Control the Netherlands (LVNL) are working together to provide just that type of information. Due to safety regulations, reduced horizontal visibility on airports can have an immediate impact on the availability of runways and hence the airport capacity. Fog is therefore one of the most relevant meteorological phenomena to airport operations.

A study has started in which the statistics of fog occurrence and visibility at Amsterdam Airport are assessed. The aim is describing the current climate (from 1970 onward) as well as making projections into the future (up to 2040). For the latter, the identification and attribution of trends is relevant. Another point of interest is the spatial pattern of fog potential over the airport, in particular the related questions whether some runways are more prone to fog occurrence than others and whether these runways require a separate forecast. To answer these questions it is crucial to distinguish between large-scale and local influences. The preliminary results of this study are presented here.