Atmos. Meas. Tech. Discuss., 5, C2630–C2631, 2012
www.atmos-meas-tech-discuss.net/5/C2630/2012/

Atmospheric Measurement Techniques Discussions

Interactive comment on "Novel method for fog monitoring using cellular networks infrastructures" *by* N. David et al.

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Received and published: 23 October 2012

We thank the anonymous reviewer for the constructive comments.

The goal of this paper is to provide a proof of concept with promising results showing feasibility of a new method for fog monitoring. The microwave systems from which we receive measurements operate in a frequency range of up to 40 GHz with typical magnitude resolutions of 0.1-1 dB. Therefore, by definition, the measurements are affected predominantly by very dense fog events that induce attenuation of more than 0.1/1 dB to the received signal level, as in the example presented. In our region there are not many such events in areas where visibility measurements are available. We believe that demonstrating the proposed method on few independent fog events is sufficient

for proving the concept. We have data for an additional event of extreme fog that occurred several years before the case that was presented, and an analysis of the results of this event will be added to the improved version of the paper. Statistical analysis of many events is a topic for a different study, which may be carried out in the future with microwave network of higher frequency and/or lower quantization step. After reviewing the issue with the Israeli Meteorological Service we discovered that they have additional measurements from a scatterometer that was also operating at the time, and recorded the fog event of November 2010. The scatterometer provides Meteorological Optical Range (MOR) measurements that are better suited for comparison to the visibility measurements derived from the microwave system. These results will be analyzed and compared to the proposed method's measurements in the modified version of the paper. The grammar corrections will be addressed as well.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 5725, 2012.