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Atmospheric Measurement Techniques Discussions

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

Anonymous Referee #2

Received and published: 28 November 2012

This paper should be rejected based on reasons given below.

Overall comment:

Authors should spend time on the quality of their work. Many characteristic numbers do not valid for fog. Say LWC; you say up to 4 g m-3 in many places. This is not acceptable. Please be specific and correct on these numbers. I will ask you to read more on Gultepe et al papers on AMS Journals (e.g. AMS bull. And JAM) as well as J. Pure and Appl. Geophy. Please understand that your numbers are not for fog but convective clouds etc.

I like the idea to use MLs to estimate fog LWC and thought that I will have a unique work

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Interactive Discussion
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on this. But, it ended up in a very confusing work. Authors should work on improving the quality and scientific analysis of the observations.

Major issues:

Too much info given in the introduction, please focus on what you need.

Section 2.1; concern is not that instruments are not working but areal coverage of each sensor. Instruments usually work fine. Major issue is that they are not available everywhere and they are expensive.

In this case, you should specify the goals of your work clearly.

1. cm upper limit for fog is 100 micron, it is too high. See Gultepe et al papers in AMS bulletin paper.

Method section should be clearly written and organized e.g. say i) using Kunkel Vis-LWC relationship, ii) Using Gultepe et al parameterization.

In a paragraph, please explain why Kunkel should not be used.

Say somewhere that this work is for warm fog conditions.

Section 3.3

2.8 g m-3 is measured in convective clouds, nothing to do with fog.

What is time averages? 15 mins? How do you use it for fog prediction?

Section 4; 4 g m-3????? It is too high, based on this, this work should be rejected.

T error as 0.1 C, not acceptable, check Gultepe et al papers, this is about at least 0.5-1 C.

Again everywhere your LWC is so high, please check these numbers agains to Gultepe et al field projects results.

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Interactive Comment

Fig.1 how did you get fogy regions? What technique?

Fig. 5

You need to show Vis versus LWC for each line and compared to these of earlier works.

Otherwise, results are very suspicious.

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

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Interactive Comment