

## ***Interactive comment on “Calibration and validation of the advanced E-Region Wind Interferometer” by S. K. Kristoffersen et al.***

**Anonymous Referee #2**

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The manuscript gives a detailed summary of the instrumental setup, analysis procedure, calibration and validation of initial measurements performed with a new Airglow wind measurement technique in the altitude range of about 87 to 97 km. The new developed ERWIN II instrument shows superior performance to previous airglow wind measurement techniques.

The manuscript is well written and nice to read. The paper is worth publishing and seems well suited for AMT after some minor modifications.

I have two minor comments (see below) and some technical notes, that are supplied in the annotated manuscript that can be found in the supplement.

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Minor comments: 1. The comparison to other instruments is difficult (as stated already in the manuscript), and the authors have found a reasonable way to compare totally different measurement techniques. However the text on pages 8294,8295 should be revisited, taking into account that other instruments might be designed to measure other properties in addition to wind. For example wind, temperature, density, ... Or they are designed for altitudes in addition to the E-Region ... or during day/night. Rocket techniques for wind measurements in the E-Region are not mentioned (e.g. chemical tracer release)?

2. The authors highlight that there is a set of instruments available at PEARL, some of them with the potential to verify the results of ERWIN II. At least a note in the manuscript why such a comparison is not done here seems necessary.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech-discuss.net/5/C3532/2013/amtd-5-C3532-2013-supplement.pdf>

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Interactive comment on Atmos. Meas. Tech. Discuss., 5, 8271, 2012.

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