

## ***Interactive comment on “Evaluation of Windsond S1H2 performance in Kumasi during the 2016 DAccIWA field campaign” by Geoffrey E. Q. Bessardon et al.***

**Anonymous Referee #1**

Received and published: 6 October 2018

Title: Evaluation of Windsond S1H2 performance in Kumasi during the 2016 DAccIWA field campaign

Authors: Geoffrey E.Q. Bessardon, Kwabena Fosu-Amankwah, Anders Petersson, Barbara J. Brooks

Overall comments:

The authors have offered adequate responses either by addressing my comments or revisions to the paper. However it should be clearly stated in the abstract that this Windsond is intended primarily for collecting boundary layer observations. Also note that boundary layers are typically 500 m over the tropical oceans but can be 5 km deep

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under summertime continental conditions. So in the first sentence of the conclusions where you state that it measures conditions at lower altitudes, lists an approximate height range where observations are considered good. For example, "... lower altitudes (up to  $\sim$ 2 km)" or whatever altitude you trust your data.

Finally, in your response you mention that you thought the balloon did not effect the winds. But there is also a concern during daylight flights that radiative effects off the balloon with a short 4m string could effect the T and RH measured by the sonde.

Suggested rewording:

Line 30: This rough estimate varies regionally as the price of labor, helium and balloons is not the same around the globe. Yet operational costs are a significant investment in countries with limited resources.

Line 111-115: "... the Vaisala ground station has a GPS receiver ... However, wind speed and direction are determined independently from the GPS position using the GPS doppler frequency shifts.

Line 117: "Similar to the RS41-SG ..."

Line 206: "... performed. To be statically significant this result needs to be verified with additional performance ..."

Line 239: "During the descent after the sonde loses contact ..."

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2018-179, 2018.