

Interactive comment on “An automated cloud detection method based on green channel of total sky visible images” by J. Yang et al.

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The authors highlight the importance of using the green channel for automated cloud detection from visible total sky images. For this reason, they compare their results with traditional two-dimensional red-to-blue band methods. In several points of the manuscript, they compare their results with R/B, R-B or $(R-B)/(R+B)$. I would kindly like to ask the authors to take into account the following two comments in order to further improve their results: First, the importance of the green channel had been firstly presented in the paper of Kazantzidis et al., Atmospheric research, 2012. In that paper, a multi-color criterion was proposed and representative examples were presented to highlighted the need of using the green channel. The same method was presented

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in Wacker et al., Journal of Geophysical Research, 2015, where the cloud coverage estimations from sky cameras were compared with outcomes from other automated techniques. It would be interesting if the authors would like to make comparisons with this multi-color criterion, too. It also is important to note that the red-to blue and the multi-color criteria were developed for specific sky camera types. The proposed threshold values change significantly when a camera with different CCD or input optics is used. Although this is mentioned in the manuscript text, it is proposed to be explicitly mentioned in the abstract and the conclusion paragraphs. Second, the authors present some sample results of their method and state the proposed algorithm is robust for all types of test total images. It would very useful to examine the validity of the methods in cases that high clouds appear instead of cumulus that have quite discrete edges.

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 4581, 2015.

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