

Interactive comment on “Detection of ground fog in mountainous areas from MODIS day-time data using a statistical approach” by H. M. Schulz et al.

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This paper try to retrieve ground fog in mountainous areas based on MODIS data in day-time. The approach judge the fog by comparing the cloud base height with DEM height. Ganerally, the cloud base height is difficult to get, while the authors invent a statistical method to get the cloud base height over mountainous areas, the validation shows it work well. So this approach could have bright application prospect. While towards to the paper aims and content, there are still some minor questions.

1. Aims of this paper is somewhat fuzzy. The paper indicate that it purposes to get cloud forest distribution of Taiwan using a map of ground fog frequence. To get the fog frequency, it should use long time satellite data, but from the long time scale, is

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there big difference between low stratus frequency and fog frequency? Because the low stratus frequency should be easier to get, such as Thies et al. (2015).

2. Besides, the night time cloud forest frequency should be similar with day time cloud forest frequency, but the night time fog/stratus frequency is still similar with day time fog/stratus frequency? Then, can day time fog/stratus frequency present the day time cloud forest frequency? if yes, you should give some proof or potential usage cases. In my opinion, the fog/stratus frequencies in day time and night time may be different.

3. Page 4, “Cermak and Bendix(2008)” should be “Cermak and Bendix(2011)”? also in table 2.

4. The Sobrino(2008)’s method was applied to land surface, could it be appropriate to fog/stratus?

5. In “Validation results and discussion” and table 6, what’s the meaning from author to compare this paper’s result over Taiwan area to Cermak and Bendix’s result over European area? In different places, I can’t see much comparisons between two results.

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