

Interactive comment on “Commentary on comparison of MODIS snow cover and albedo products with ground observations over the mountainous terrain of Turkey” by A. Ü. Şorman et al.

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Thank you very much for your overall evaluation. We would like to clarify at least some of your questions.

1. A snow depth of 25.4 mm, corresponding to 1 inch, was selected as a threshold value to indicate snow presence on the ground surface. This value is proposed by Simic et al (2004) in literature and in one of our studies that were carried out at the same region, it was observed that with a threshold less than 20 mm, snow and wetland separation becomes a troublesome issue (Sensoy, 2005).

2. Both the preceding and ahead days were used in the consistency analysis for cloudy days. This is written under the section of “Analysis”, but we agree that it should be repeated a few times within the text.

3. Concerning the comments under the ‘discussion of result’ section: The manual snow course measurements are carried out only if the snow cover exists. Therefore, the consistency analysis could only be available for the days on which snow site measurements were done. The accuracy of MODIS snow cover images were analyzed for both clear-sky and cloudy-days and represented in Table 2 and Table 3.

4. The validation analysis captures omission errors (there is snow but it is missed by the image) but not commission errors (no snow on the ground and image is showing snow). The error matrices for 2002-2003 winter period and 2003-2004 ablation period are composed of the omission errors. Since the commission errors are missing the overall accuracy and the Kappa coefficient can not be calculated. In order to get the commission errors, higher number of automated stations is required.

5. The resolution of the figures will be increased.

6. The caption of Figure 2 is changed as ‘a) Snow courses on the topographic map of Karasu Basin and the surrounding area, b) AWOS locations on the DEM of Karasu Basin.

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