

General comments:

The article is a study looking at the issue of false cloud detection over high altitude regions likely due to the presence of snow for the MODIS- and AVHRR-derived CLOUD\_cci products. A cloud mask is generated using surface longwave and shortwave observations and compared against SYNOP and satellite masks. This data is used to create a decision-tree model with the intent of identifying false cloud detections in the satellite products. This is an important issue and the basic approach is sound. The manuscript has benefited from additional proof reading.

I appreciate the changes the authors have made to address my specific comments. I was disappointed that no significant changes were made to address my two larger concerns: the lack of a snow mask in the analysis and a more thorough analysis of the uncertainties inherent in validating satellite-based observations with surface measurements. That said I understand time and resource constraints, and on page 19 the authors acknowledge the issue of satellite viewing geometry and suggest it as a topic for further study.

I believe that the article provides a significant contribution in its current form and is suitable for publication.