

## ***Interactive comment on “Overview of NASA’s MODIS and VIIRS Snow-Cover Earth System Data Records” by George A. Riggs et al.***

**Anonymous Referee #2**

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This is a very good and concise overview of MODIS and VIIRS snow retrieval algorithms and of the snow products. Overall the paper looks fine to me and it is practically ready for being published. It would be great however if the authors could address the following few questions and comments in the final version of the manuscript. (1) As I understand the snow thermal screen is turned off at 1300m surface elevation and above. Is there any justification for choosing this particular value ? (2) Although cloud shadows are mentioned in the paper it is not clear whether they are somehow accounted for in the algorithm or in the product. Are snow retrievals performed in shadowed areas ? If they are, the quality of retrievals should probably degrade. It would be good if you could also comment on the possible effect of topographic shadowing on MODIS and VIIRS snow products. (3) It is stated that the VIIRS snow detection algorithm is very similar to MODIS. Could you please elaborate on this issue a bit further ? Are the al-

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gorithms indeed identical or they have differences ? Apparently the central wavelength of VIIRS I1 is not the same as MODIS band 4 (see page 6). Does this difference have any noticeable effect on NDSI ?

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