

Authors' reply

Dear Editor,

Dear Reviewers

We thank you for additional but important comments to the manuscript that we address point-by-point hereafter.

The structure of Revision notes (this document) is as follows:

Black – Comments from editor

Blue – Author's Response

Green – Author's changes in manuscript (see revised version of manuscript)

### **Editor / Reviewer comments**

1. On page 2 lines 7-10 the impression is given that MODIS is somehow superior to other visible satellites but it is also affected by the same cloud cover limitations as AVHRR. I suggest you revise lines 7-15 to describe more generally the developments in visible satellite monitoring of snow cover over time.

A: Lines 7-15 are revised now considering referee comment in the revised manuscript (Page 2, lines 7-15).

2. Page 2 lines 12-13: Atmospheric pollutants are not a strong limitation on snow cover mapping compared to cloud cover. I suggest you remove this unless you have some references to support this claim.

A: The limitation with atmospheric pollutants is removed now in the revised manuscript.

3. Page 2 line 29-31: Brown and Robinson (2011) should be included after Frei et al 1999 as a more recent example of blending reconstructed and satellite derived snow cover information.

A: The study by Brown and Robinson (2011) is now included after Frei et al., 1999 in page 3, line 1 and also mentioned in the text in the revised version (Page 3, lines 11-13). Correspondingly, the study by Brown and Robinson (2011) is now included into reference list.