Editor review of the revised version of :

Influence of stress, temperature and crystal morphology on isothermal densification and specific surface area decrease of new snow

By Schleef et al.

Submitted to « *The Cryosphere* »

This paper is now ready for publication. The authors have done a fine job at improving the manuscript. Just a few minor optional changes are suggested below. Line numbers refer to the author's response file.

Line 18: how about "in the investigated 48h time range".

Line 71. A good representation of the time evolution **of** these parameters

Line 79. How about a reference for the snowmaking technique here ? A reference is given line 130 but should be given the first time it is required.

Line 86. Perahps reword to : which includes new snow in its first few days of evolution.

Line 97 and 98. Perhaps change "make contact" to "relate".

Line 151. Replace bury with burial.

Line 207 and 348. Legagneux **et al**.

Line 458 ff. Another explanation for the difference between both parameterizations could be as follows. Equation (13) from Taillandier et al is in fact an approximation of equation (1) in this paper. $(13)_T$ works well between about 0.5 to 1.5 days until about 100-150 days, depending on initial SSA. It devitaes from (1) beyond this raneg, predicting higher values at short times and lower values at long times. It thus does not work well at very short times. Since the objective of $(13)_T$ was to provide an easy-to-use parameterization for season-long SSA evolution, it sacrifices precision at the initial stages. A combination of both parameterizations may be adequate to accurately model SSA evolution from 0 to about 100 days. You may elaborate on this at your convenience, or just mention this point in the conclusion..

Line 654. Arnaud, L. ,Picard, G.**, Champollion, N., Domine, F., Gallet, J.-C., Lefebvre, E., Fily, M. and Barnola**
Line 702: Legagneux **and Domine**

Author's name: please change Dominé to Domine throughout.