

Interactive comment on “Systematic bias of Tibetan Plateau snow cover in subseasonal-to-seasonal models” by Shuzhen Hu and Wenkai Li

Anonymous Referee #1

Received and published: 19 June 2020

Intraseasonal variation of snow cover over Tibetan Plateau is very important for the prediction of surrounding and downstream regions. Recognizing the subseasonal prediction skill of TP snow cover in the current models are crucial for correcting and improving subseasonal prediction. Snow cover's S2S skill is scarcely studied, which is worthwhile to investigate. However, the current version has large space to improve. I suggest the resubmission after reframing the writing and clarifying the following points. 1. The writing frame should be modified. e.g., a. a method part should introduce the major method how to evaluate the S2S skill; b. the numerical experiment design and modeling introduction should be put earlier in this manuscript. 2. The evaluation method of S2S skill is conventional and simple. To me, the major contribution of this

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study is intentionally S2S evaluation. therefore, please give some quantitative evaluation rather than only TCC. 3. What season of this study is focused on? I cannot find any information for this. Meanwhile, I guess the S2S prediction skill should have large seasonal dependence even monthly dependence. Please check. 4. Regional modeling portion, I cannot understand it very well. To me, one is the predicted lateral boundary layer, the other is observational boundary layer, of course the latter is better than the former. I don't know which point does this study want to present through the numerical modeling. 5. To fit “Cryosphere”, which is high-quality journal, at least, some physical analysis are needed. e.g., land-air budget analysis (surface fluxes) should be added to interpret the linkage between snow cover and surface temperature.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2020-131>, 2020.

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