

## ***Interactive comment on “Quantifying mass balance processes on the Southern Patagonia Icefield” by M. Schaefer et al.***

**J. L. Bamber (Editor)**

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Dear authors,

As outlined in my original access review, and in the subsequent reviews posted, this work offers considerable potential for improving our knowledge of SMB over the SPI and the objectives of the research are, therefore, worthwhile. As also noted in all the reviews, including mine, there are concerns about uncertainties in model estimates and your ability to validate or verify various components of the SMB. The referees raise a number of additional and substantive concerns. One in particular, is the use of NCEP rather than another re-analysis data set that performs better in this region. Your explanation that you had “easy access to this data” is not a good scientific justification, especially when ERA-40 and/or ERA-interim (for example) are freely and readily

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available.

While your replies to the referees’ comments go some way to addressing some of points and you discuss inclusion of, for example, a mass balance profile in a revised m/s both referees consider major revisions are required and I concur. If you are confident you can adequately address the concerns of the referees and the SC posted, then I would welcome submission of a revised m/s, which will require re-review.

Jonathan.

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Interactive comment on The Cryosphere Discuss., 8, 3117, 2014.