

Interactive comment on “A Lagrangian analysis of the present-day sources of moisture for major ice-core sites” by A. Drumond et al.

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Received and published: 15 April 2016

Please, read our answer for your commentaries. Thank you very much for your review.

*Some ice core sites are widely known (as Vostok) but not all of them, at least for this reviewer. Could the authors add a bibliographic reference for the data of table 1? - We included some examples of studies concerning the ice core sites investigated in the present work. The references were added in the Table 1 of the manuscript.

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*The applicability of the method for computing moisture sources has been widely demonstrated in many regions around the world, even for reduced regions. In this work, besides the fact that the horizontal resolution is 1° and that there are areas with low data density (as Antarctica), the sites are generally located in high altitudes. How

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many particles are typically found in these fourteen locations? - The approximate number of particles found per time step over each of the fourteen locations was included in the table 1 of the manuscript. Stohl and James (2004) state that the estimative of the moisture budget is valid when the number of particles per grid column of the input meteorological data exceeds the number of the layers.

Technical corrections *In page 8 (summary), lines 1-2 and lines 7-9 are repeated. -Thank you. Lines 1-2 were removed from the text.

Please also note the supplement to this comment:
<http://www.earth-syst-dynam-discuss.net/esd-2015-97/esd-2015-97-AC2-supplement.pdf>

Interactive comment on Earth Syst. Dynam. Discuss., doi:10.5194/esd-2015-97, 2016.

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