

Dear Editor,

Thank you for editing our paper. We took into account all technical corrections made by the reviewers and we updated accordingly the version of the paper. In addition, we provide the figures with the best quality in a separate file that could be included in the final version.

Note also, the two co-authors from ESA (D. Schuettemeyer and B. Veihelmann) decided not to be longer among the list of authors. Therefore we removed their names from the list.

Best regards,

Rachid Abida et Jean-Luc Attié on behalf of the authors.

For your information, below are the reviewer's remarks :

Technical corrections:

1. The new sentences since last version should be English edited, from co-authors' assistance.
2. References to multiple sensors should be in chronicle orders, e.g. MOPITT, AIRS, TES, IASI, and CrIS, etc. This also apply to the years of publications (e.g., 2004, 2006, 2006, 2013, 2013, 2015, 2016).
3. The font sizes on all figures' (except Figs. 1, 3, and 14 ) labels, titles, etc. should be larger.