

Review of Errera and Ménard

Short comment by editor:

This is a very useful paper that discusses methods for estimating background error covariances, and implementing these methods in the context of chemical data assimilation. Although the material is not new, the application to chemical data assimilation would appear to be novel. Furthermore, the information provided in this paper (summary of methods; code to implement the methods) will be very useful to the chemical data assimilation community, including people working on the incorporation of chemistry in NWP.

The technical points arising in the paper have been addressed very thoroughly by referee # 1 and in my view these have been handled satisfactorily in the response of the authors to referee # 1. I would reinforce the comments from referee # 1, and ask the authors to address them in a revised version of the paper. Once this is done, I think the paper should be suitable for publication in ACP.