

We sincerely thank the editor and the two anonymous reviewers for their positive feedback and the time they dedicated to reviewing our revised manuscript. We have carefully gone through the manuscript again and made revisions based on your comments. In addition, we have carefully checked the manuscript for typos and corrected them wherever possible. Please refer to our detailed point-by-point responses below and the tracked changes in the revised manuscript for reference.

Topic editor decision: Publish subject to minor revisions (review by editor)

The revised manuscript addressed the reviewer comments and is ready for publication pending the follow minor revisions:

Line 538: Add "separately" between "steps" and "with different jobs"

Reply: Fixed.

Line 539: Remove "two steps"

Reply: Fixed.

Line 756: Change to "Trémolet, Y. and T. Auligné"

Reply: Fixed.

Review #1

I appreciate the authors' efforts to better highlight the novelty of this study and to address all my specific comments. I am especially glad to see the runtime comparisons with and without the offline QC step, and the mention of "reduce obs space" for future users of MPAS-JEDI. I recommend publication after a few very minor issues are addressed (see below).

Reply: We sincerely thank the review for your positive feedback and your time on our revised manuscript.

L72: Should "access" be "assess"?

Reply: Fixed.

L225: The new list of channels and their frequencies is a bit wordy and distracting. Could this be moved into a table?

Reply: We have updated table 2 to include the frequency of each channel.

L255: Pixels with CLW contents exceeding 0 are excluded -> add unit for 0 please

Reply: Fixed.

L378: Change “10000” to “10,000”.

Reply: Fixed.

Review #2

I would like to thank the authors for their efforts in revising the manuscript and addressing my concerns. The manuscript is in good shape now, and I have no more comments.

Reply: We sincerely thank the review for your positive feedback and your time on our revised manuscript.