

Response to Editor comments

December 18, 2025

In response to the following Editor comment:

Thank you for submitting your manuscript to Weather and Climate Dynamics. The reviewers were positive about the paper's clarity and scientific contribution, and I agree with their assessments.

I have only one minor editorial comment. The analysis focuses on all-months relationships between the ACWB, SAM, and JLI. While seasonal directional-constancy maps are included in the Supplement, the manuscript does not examine whether these large-scale relationships differ by season. Briefly exploring how the ACWB-SAM and ACWB-JLI relationships might change seasonally would strengthen the interpretation.

I'd be happy to accept the manuscript for publication after clarifying this point.

We thank the Editor for their comments.

The seasonality of the ACWB and other indices is something we did analyse when preparing the manuscript but it is a complex matter given the various drivers involved. We decided that that the seasonal variations were not the most important results, in what was already a long paper. We considered it would substantially increase the length of the paper to provide additional text and figures to support a robust description of the seasonal effects. We have however added a short paragraph at the end of Sec. 4.3 to give an indication of how the seasonality of the ACWB is influenced by the seasonal variation in the local- and large-scale drivers.