

I would like to thank the authors for their comprehensive response to my comments and their thorough review of the manuscript based on the comments of all the reviewers. There were two minor points to make from the authors' responses:

Line 88: this is now "an eastward".

Lines 123—124: "Key characteristics of the WD, along with its environment, are summarised in Fig. 3" – would it read better if this sentence was kept to being the last one of the subsection (i.e., so that the two new sentences are inserted before it)?

I feel that the paper is almost ready for progressing to typesetting from my point of view, but I would first like to follow up some more of the citations. Ideally, when reviewing a regular article, a reviewer will have a good general overview of the relevant literature themselves and will only need to follow up a relatively small number of citations. However, I think for such a long and wide-ranging review article such as this one it is not feasible to find reviewers who would not need to follow up a huge number of citations, making the exercise impossible within the normal constraints of performing the role in the margins of a regular scientific job. Therefore, in my initial review I took a statistical approach to following up the citations, by checking in detail roughly 8% of them (chosen as far as possible at random); this is of course in addition to reading through the manuscript and having in mind my general knowledge of the literature (which of course varies in its extent for the different parts of the paper!).

My thinking was that, if all reviewers take the same approach, and no errors/discrepancies are found (or only a very small number are found and corrected), then one can be reasonably confident that the total number of discrepancies is very small. Five such discrepancies were found and corrected just from my check of 8%; it is of course true that they were all fairly minor and do not change the overall conclusions of the paper so I don't think this is a major concern. However, since the review article is intended to act as a reference, synthesising the available literature, it is important to ensure that it provides as accurate a representation of previous work as possible. I would therefore suggest that the authors go through the citations carefully and ensure that there are no discrepancies as far as they can; additionally, I have repeated my "statistical" exercise for this second review and followed up 10% of the citations (spread evenly throughout the paper). Most of these I can see are correct, and for the remaining ones it would be useful if the authors could address my concerns listed here: it may well be that in most cases I have misinterpreted or not found the relevant statement/plot in the paper.

Line 231: Is the interpretation that some of the extratropical cyclones in Wernli & Schwierz (2006) fulfil the same criteria used to define WDs but do not reach as far south/east? Is this something demonstrated in the article or something you have followed up with the data set?

Line 485: I could not find where D-excess values explicitly in the Arabian Sea were referred to by Jeelani & Deshpande (2017). Is this based on interpreting D-excess values from some of the regions they mention as having a source in the Arabian Sea?

Line 592: Where do Riley et al. (2021) mention feeble/weak WDs in particular?

Line 660: Don't Thayyen et al. (2013) investigate an August flooding case (rather than pre-monsoon)?

Line 834: Hingmire et al. (2022) look at future change; where do they say that the recent increase in fog is due to increased aerosol loading and urban expansion?

Lines 1127-9: Patil & Kumar (2016) only show maps for the best model don't they, so how can you describe the biases in this detail for all experiments? And I would say that their Experiment 5 led to some fairly substantial improvements in the precipitation RMSEs (their Table 4), but overall "They found only a low sensitivity to the choice of microphysics scheme." is probably a fair statement to make!

Lines 1220-1: Das et al. (2003) do recommend using 10 km spacing to improve forecasts but I couldn't find where they explicitly demonstrate that the biases can be significantly reduced by dynamical downscaling.

Lines 1363-6: It seems strange that the same authors would make contradicting statements in different works (I wasn't able to access the book reference).

Line 1426: Where does Lone et al. (2022b) state that it was warm and dry for these particular years (maybe I got mixed up converting from their "years since the present" value to CE/BCE!)?

Lines 1472-3: Where to Singh et al. (2015) mention the elevation dependence?