

Interactive comment on “Impact of airborne cloud radar reflectivity data assimilation on kilometre-scale NWP analyses and forecasts of heavy precipitation events” by Mary Borderies et al.

Anonymous Referee #1

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The results in this study contribute to our understanding of data assimilation method and the manuscript could be considered for publication following revisions.

Please explain the subscript i in Equation (1).

In the bias correction method, the bias is given by $b = \langle Z^o - y^{po} \rangle$. However, the innovation is defined as $Z^o - H(x)$ in the cost function J_{po} . The authors need to show the histogram (or mean error) of the bias corrected innovation.

Please explain the notation of r_q^o and r_q^m in Figure 3.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-314>, 2018.

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