Author Responses for "Lifecycle of Updrafts and Mass Flux in Isolated Deep Convection over the Amazon Rainforest: Insights from Cell Tracking" (egusphere-2023-2410)

The authors would like to thank the referee for their suggestions to improve the quality of the manuscript. This document has referee comments in blue, author responses in black, and "text added to the revised manuscript in red within quotations".

REFEREE 1 (2ND ROUND):

In the manuscript "Lifecycle of Updrafts and Mass Flux in Isolated Deep Convection over the Amazon Rainforest: Insights from Cell Tracking", Gupta et al. present clear and insightful findings regarding the behaviour of Amazonian convection across seasons, in particular regarding the mass flux of observed convective cores which is a variable of great importance for wider studies of convection. I am fully satisfied with the authors' response and revisions to the previous round of review, and my remaining comments are all very minor. As a result, I recommend that the manuscript be accepted for publication subject to technical corrections.

I would also encourage the authors to continue the research originally presented in section 3.4 of the manuscript, along with the research pathways mentioned in the response to reviewers, as I believe that these would also result in good publications.

Minor comments:

Line 178: Suggestion: refer to fig. 1c-e specifically (rather than just "fig. 1")

We have updated the text following this suggestion.

Line 210: Correction table S3 -> table S1

We have updated the text following this suggestion.

Line 214: The description of the heatmaps could be rephrased for clarity, e.g. "heatmaps of the latitude and longitude of detected cells"

We have updated the text from "heatmaps from a 2D histogram of latitude and longitude pairings from the cell tracks" to "heatmaps of the latitude and longitude of the detected cells".

Line 229: Correction: "…while 20% of features were…" -> "…while 20% of cells were…"

We have updated the text following this suggestion.