

Response to reviewer 2:

P5, Line 24-26: What is the significance/importance of the deep shear changing direction from NE-SW-E over a short period on 2 Sep?

We are simply describing the local flow environment and how it evolved during the period of observations. We do not have evidence or theoretical intuition to suggest that the change in direction is dynamically or thermodynamically significant. Consequently, we do not feel a remark is needed in the text.

P8, Line 6: There is no analysis of the kinematic structure of the wave pouch at 400 hPa, but particle trajectories are examined in Fig. 7. A simple statement describing its structure should be added.

Manuscript text updated to discuss the 400 hPa wave pouch.

P17, Table 1: It would be nice to somehow indicate what dropsondes are within the three degree box you use for analysis and which are outside.

Annotations were added to the table in the revised manuscript.

P23, Fig. 6: Is the unstable manifold represented by the cyan line a feature of the Gaston wave pouch, or some larger scale feature?

Technical Corrections

P2, Line 9: Omit comma after vertical

We corrected this error in the revised manuscript.

P6, Line 9: “referred to as pouch scales” should be used on the previous page to explain why you chose the three-degree box for your analysis domain.

We made this edit to the updated text.

P7, Line 3: First mention of RM12, needs to be defined. It would be nice to distinguish in the beginning the differences between the present study and the work of RM12.

We corrected this error with an inline citation. References have been updated also in the revised text.

P9, Line 1: Degree symbol after 0.

We made this correction in the updated text.

P10, Line 7: Are the listed RH & CAPE values equal to or less than?

The listed RH and CAPE values are “equal to”.