Natural Hazards
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Discussions

Interactive comment on "Brief Communication: An Electrifying Atmospheric River: Understanding the Thunderstorm Event in Santa Barbara County during March 2019" *by* Deanna Nash and Leila M. V. Carvalho

Anonymous Referee #3

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Review: An Electrifying Atmospheric River: Understanding the Thunderstorm Event in Santa Barbara County during March 2019

The manuscript analyzes an AR event that occurred on March 2019. Despite having a relatively low amount of precipitation (77.6mm in 30h) it was extraordinary amount of lightning strikes in the region that stands out. The topic of this study is of interest to be published and the manuscripts is in general well written however I have a few structural issues that need to deal with before the manuscript is ready for publication.

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Discussion paper

I believe the entire Introduction section needs to be re-written. In the present form it's a mixture between introduction and results. Therefore, should have the following in mind when re-written the introduction: - What is an ARs; - Possible impacts and benefits (first paragraph should be in here); - Lightening brief introduction and precipitation measures and radar. - I would remove everything that is results from this specific event.

Section 2. Parts of the introduction are already stated here. So, I would keep all the dataset and methodologies in this section and avoid repetition with the introduction.

Section 3. I would include a new sub-section before sub-section "Extratropical Cyclone and AR Conditions". This new sub-section would be the description of the March 2019 event, with most of the information being taken what was already mentioned in the introduction.

Minor comments: Figure 1. The color scales are a bit confusing.

How much do you trust in the vertical speed from reanalysis data?

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2019-342, 2019.