

Co-editor decision: Publish subject to minor revisions (review by editor)

by Peter Knippertz

The authors have worked very hard to improve the manuscript. It is good to see that the time period was extended and that more stations were used. Also the language appears to have improved overall. Although not all points of the reviewers have been fixed to 100% satisfaction, I exchanged with the editor in chief, Heini Wernli, and we decided to accept the paper now subject to minor revision. Nevertheless I would like to call on the authors that next time they should not submit manuscripts in a somewhat pre-mature state. This takes too much time and energy of reviewers and editors, who give all this for free.

The technical fixes that we would like to see are listed below. In addition, I would like to ask you once again to go through the manuscript and eliminate remaining unclear formulations or other errors you may find. Ideally, you do this with the help of an outside native speaker.

Author's response:

We sincerely appreciate the efforts of the editor and reviewers in carefully evaluating our manuscript and providing valuable feedback. We are pleased to see that the extension of the time period and the inclusion of additional stations have been recognized, along with improvements in the language throughout the manuscript. While we acknowledge that not all reviewer suggestions have been addressed to full satisfaction, we are grateful for the decision to accept the paper pending minor revisions.

Moving forward, we understand the importance of submitting manuscripts in a more polished state to minimize the burden on reviewers and editors. We will take this feedback into consideration for future submissions.

In response to the technical fixes listed by the editor, we have carefully reviewed the manuscript and made necessary adjustments.

We thank the editor and reviewers once again for their patience and understanding throughout this revision process.

Below, we answer to some of the minor revision points raised by the editor.

line 5: "Similar to Germany" is strange, given that the previous sentence says that you look at France. I think this happened because you often describe in your paper your results for France with results from the literature for Germany and the US. But this must be much clearer throughout the paper. Here in the abstract, I would suggest that you first describe your results for France, and then add a remark about how things compare with results for other countries that were previously published.

We have reworked slightly the abstract to put more emphasis on the results for France, as suggested by the editor.

line 6: what is "a suggestive trend"? Is that a trend that is not statistically significant? I think the abstract should focus on results that are solid, and not on things that should be taken with caution.

We value the editor's feedback, and in response, we have removed references to uncertain outcomes from the abstract.

line 11: “consistent with Mediterranean trends” is not clear to me, are these trends from other regions / other studies?

We have clarified this in the abstract (we meant previous studies).

line 60: no need for “In 2016”

line 97: space after “hazards” is missing

line 120: sentence is very verbose, maybe just “Finally, conclusions and future perspectives are presented in Sect. 4.

line 146: something wrong with formatting of reference; same on line 147 and 148

line 156: inconsistent use of tense: one sentence is past tense, the next present tense ...

line 161: “... days when” (not where)

line 176: “what is an initial climatology”? the same as a preliminary climatology?

We changed "intial" for "first".

line 185: most likely “.” missing?

line 186: I don’t understand what is meant by geopotential height offset

We have clarified this in the revised manuscript.

line 190: I don’t understand this sentence, how can the same analogs capture both heat waves and cold waves? Why do you need to mention here cold waves?

We have reworked this part, also removing mentions of many types of extreme events as suggested in the next revision point.

line 207: what is meant by “leading up to”? Not sure that you need to list here all previously studied events

line 253: I don’t understand why you mention influences of ENSO etc. on “some regions in Europe”, when this study is specifically about France

We have fixed this sentence.

line 282: I don’t understand, I thought the analogs have a small Euclidian distance per definition, so how can the event not “belong to the same distribution”?

We have clarified this point in the revised manuscript.

line 302: I think you explained this already in Sect. 2?? no need for repetition.

We have removed the details on this classification that were presented in the introduction and in section 3.1 and moved them to section 2.1 instead.

line 305: I am irritated that you start presenting your results with “In comparison to Germany”. This sounds to me as if you studied with the same data derechos in Germany and France and now make a comparison. But this is not the case(?). I would present your results, and then in a separate paragraph explain whether your results differ or not from results published by others for Germany and the US and ... I would restructure this entire Section.

We thank the editor for pointing out this awkwardness. We have entirely reworked this section as suggested by the editor.

line 313: please check again that you don't repeat all methodologies details here that you already introduced in Sect. 2.

We have checked that no repetition was made between Sect. 2. and 3.

line 379: don't include “figure caption explanations” in the main text of the paper.

everywhere “Figure” should read “Fig.” (except for beginning of sentences).

Fig. 4: explain what a zero-centred anomaly is

We have explained that the spatial mean has been removed from the Z500 field in the caption.

Fig. 5: panels are very small, no need to have longitude labels below all panels, in this way panels could be enlarged.

We have removed the longitude labels between the panels, and we have enlarged the panels.

Fig. 7: it seems to me that with so few events not statistical test is required, these differences / trends can hardly be significant. I would just show the data, mention that there is not enough data for a statistical analysis and not burden the reader with $H=0$ and $pval=0.89127$...

We believe that showing the results of these statistical tests is relevant as for some events, the tests are found to be negative (i.e. there are significant differences in the seasonality or significant trends, as shown in Table 2). Consequently, we chose to let the results of these tests in the titles of Figure 7, as in Figure 6.

What should the reader get from Table 2? Maybe this should go to a supplement ... I have the impression that this analysis can be shortened, also because you very often mention “the need for caution” and because is written in a way that leads the reader a bit puzzled about what you try to convey.

In accordance with the editor's recommendation to condense Section 3.3, Table 2 has been relocated to Appendix B, along with its corresponding descriptive paragraph.

line 462: careful when comparing your results for a few events with general statements about convection!

We have added a sentence to highlight the need for further investigation to check the robustness of these results.