

Interactive comment on “Re-Analysis of one of the deadliest Tornadoes in European History and its implications” by Alois M. Holzer et al.

Anonymous Referee #1

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Review of “Re-Analysis of one of the deadliest Tornadoes in European History and its implications”

I want to like this paper a lot and recommend publication. The analysis of the damage classification was obviously thorough, and the authors are well-intentioned by compiling these various sources into a single database for analysis. Unfortunately, the paper falls well below expectations. I found the text extremely difficult to follow.

In my view, the current poor state of the manuscript shows a disregard for the volunteer time of the reviewers who are forced to try to make sense and provide detailed comments to improve a manuscript. Such revisions are the responsibility of the authors, not the reviewers. In other words, it is not up to us to clean up your mess. Sorry for being so frank, but I am not pleased with the state of this manuscript.

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A paper should make it clear to the reader what its goal is. That is nowhere clear. The abstract vaguely talks about “demonstrating feasibility”, but it is not clear of what. This paper needs a clear single-sentence statement: “The purpose of this paper is to...”. If the authors can’t do this, then there is little justification for this paper.

After the text is made more clear, the paper could use a thorough proofreading by a native English speaker to make it grammatically correct.

Finally, I will add that the paper was made even more difficult to read because the text lacked indented paragraphs or vertical spaces between paragraphs.

Recommendation: Reject and resubmit after substantial revision, rewriting, and proof-reading.

Abstract:

Lines 8-10: The first sentence of an abstract should be clear. This is difficult to read and understand. What are the authors trying to say?

“Widen the data basis”? What does this mean?

“It could be speculated”: By whom?

Abstracts should be one paragraph.

Rather than saying “After presenting the methodology”, the authors should describe the methods and data.

“complex thunderstorm activity in the study area”: This description is inadequate as a sound meteorological description of the event. “Complex” says nothing meaningful.

Untypical should be atypical.

“In the outlook”: Outlook of what? The reader has no context for what this means. Clearer writing is needed.

Rather than say “we stress the side-benefits of the given study”, say explicitly what they

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are. A reader might not bother reading the entire article, so you should leave them with the most important results in the abstract. On this and other topics.

Introduction:

The introduction is poorly organized. It's a list of thoughts put together with no coherence and no argument that it tries to advance.

Line 24: "Before this study, on a regional level, and in scientific literature also on a national level, it was well known that". This content is entirely unnecessary. It is verbose, wastes readers' time, and does not encourage people to read further.

First paragraph: Starts out talking about the event of 1916, but then continues to talk about the terminology. A paragraph should have one consistent topic and theme. The reader has no context for the windstorm of 1916. Develop that topic first, then discuss what the terminology means.

Page 2: Lines 21-24: Why is this connected to the text before or after? This paragraph just hangs there. So what does the reader need to know about the surrounding data for the tornadoes? Why does this relate to the 1916 event?

Page 3: Paragraph starting at line 6 is just one sentence. This is improper in a scientific journal article.

I got frustrated in section 2 with the poor quality of the writing and lack of organization. As such, more detailed comments have not been provided. I am happy to consider providing more thorough comments ONLY AFTER SUBSTANTIAL REVISIONS FOR READABILITY HAVE BEEN PERFORMED.

Other:

1. Why is an international Fujita scale needed? What is wrong with the existing system that a simple modification to account for other damages be added?
2. What is the DI-DoD approach? Is this unique terminology and an approach used by

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this study? Or, has it been employed previously? More needs to be said about this. In its present state, it is just introduced and the reader is assumed to know what it means.

3. P. 5, line 5: Specific page numbers should be provided with direct quotations.

4. There appear to be only two new figures (Figs. 3 and 5), but each have a different purpose. Is the purpose of the paper to re-examine damage classifications (Fig. 3)? Or, is it to describe the meteorology (Fig. 5)?

5. I found the general meteorological description in section 3 lacking. What is its purpose? I don't find that it is necessary to this paper. If I am wrong, then the authors need to make more clear why it is important. Again, this issue relates to the purpose of the paper, which is poorly stated, if at all.

6. Reference is made repeatedly to "thunderstorms", but I don't see any reference to cloud-to-ground lightning reported by observers. Are these really thunderstorms, or just convective storms (no lightning or thunder observed)?

7. References to "modern theory" citing a single paper from 1993 is inappropriate. In fact, the whole manuscript is lacking the most relevant and recent research on convective storms and tornadogenesis. Specifically, not a single paper by Markowski has been cited.

8. Section 5 is poorly motivated and lacks a coherent argument for the needs for these tools and approaches. Consider the types of papers written by Carles Doswell that show depth of insight and clarity in thinking about the need for European forecast improvements. Such clarity should be mimicked in the present paper, if the authors wish to motivate the European audience to act.

9. When I get to the end of the paper, I don't see the take-home message.

10. Acknowledgements should be one paragraph, not separate sentences.

References:

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These two references to papers from ESSL have been omitted and should be considered to be cited in the revised manuscript.

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Antonescu, B., D. M. Schultz, A. Holzer, and P. Groenemeijer, 2017: The risk of tornadoes in Europe. *Bull. Amer. Meteor. Soc.*, 98, 713–728, doi: 10.1175/BAMS-D-16-0171.1.

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