

Dear editor, Dear reviewers,

Here we submit the major revision of the manuscript nhess-2020-285 where we considered all suggestions by the reviewers and as already detailed in the final response to the discussion.

We have made major changes to the manuscript to address the reviewers major concerns.

These are:

- We start the introduction section with a clear classification and description of the events.
- We added a rigorous description to our method section and moved data about satellites acquisitions to the corresponding figures and tables to improve the readability of the method section.
- We have restructured the result section according the the suggestions of reviewer 1, starting with a description of the major events, followed by a list of the minor events.
- We have removed the general conclusions about climate change and have replaced it by a more objective description our our results where we observe that most of the events occur in years with above-trend temperatures. We explicitly mention that our dataset is biased towards more recent years to prevent any biased conclusion from the fact that we observe more frequently events in the most recent years.

Due to the large number of changes made to the manuscript (see changelog file), and because the editor suggested that it will be reviewed again, we summarized here only the major changes made to the manuscript and like to refer for detailed point-by-point-responses to our final response in the discussion forum.

With kind regards,

Silvan Leinss