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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Probability assessment on the recurring Meishan earthquake in central Taiwan with a new non-stationary analysis" *by* J. P. Wang and X. Yun

Anonymous Referee #1

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This is a short review of "Probability assessment on the recurring Meishan earthquake in central Taiwan with a new non-stationary model"

Overall, this paper is straight forward and reasonably clear in terms of analysis, arguing for a non-stationary model in time (vs. stationary) for earthquakes. There are however a number of items where the paper would benefit, ranging from minor to major revisions.

(a) Discussion of the previous literature on non-stationary earthquake models. The manuscript does a poor job of building on previous non-stationary EQ models, with

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the latest one mentioned (in the introduction) from 1984. I would expect a much more thorough mention of non-stationary EQ models developed in the last 30 years, so it is clear that the present manuscript is BUILDING on these models, and proposing something different, rather than stating it has not been done.

(b) Size of earthquake considered. Throughout the manuscript, there are words like "EQ after t years since last occurrence" or other such language. I realize that the actual model uses other parameters to give an idea of energy released, but can the entire manuscript be gone over to put 'size' of the earthquake in context in the languague used (or energy released, or other measure).

(c) Aftershocks, foreshocks, main shock. Please include brief discussion of how these are included/not included in the model.

(d) [Minor] It would be beneficial to add a figure of the Meishan fault and its surroundings.

(e) [Minor] Please be clear in symbols, of ML vs. MW vs. other types of magnitude. I was actually surprised to see ML (local magnitude) being used for the earthquake in question.

(f) [Minor] Please add a table of variables used, and where they are introduced, as there are a lot of them.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 4831, 2014.