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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Non-stationarity in annual and seasonal series of peak flow and precipitation in the UK" *by* I. Prosdocimi et al.

Anonymous Referee #3

Received and published: 14 January 2014

General comments:

The manuscript investigates trends in non stationary local parameter of distribution for maximum river flow data and mean catchment daily rainfall data for annual and seasonal (summer and winter) periods over UK. With a changing climate considering trends in local parameter is important for flood risk assessment during designing hydraulic structures. Also, the manuscript deals with implications of detected trends using current design standards for the horizon 2085. The paper is well written with a good organization and provides detailed references about subject. I found the manuscript publishable after taking care of some minor revisions provided below.

Specific comments:

Page 7, line 10, is each catchment represented at least by one streamflow station? From the text it is understood that rainfall gauges are available at each catchment because average rainfall values are used.

Page 7, line 19, the reason of using log normal distribution instead of using other extreme distribution functions should be given. Log normal is used for both rive flow data and daily rainfall. Distribution characteristics should be different for both variables.

Page 10, line 17, storminess is more often describes windy weather and not always produce rain and therefore it may be named differently.

Page 10 line 25, how are the covariate values of the 25th, 50th and 75th percentiles of the R2 are found?

Page 12, line 3, the reason of selecting 10 yr decadal magnification factors for annual and seasonal maxima series of river flow and daily rainfall data should be explained.

Page 25, line 5, Conclusions section should be narrowed and give more specific and short conclusions as bullets. Large part of the text available in conclusions can be converted to summary section. So, Conclusion section can be orginized as Summary and Conclusions.

Technical comment:

Page 3, line 24, what QMED stands for?

Page 7, line 19, 2-Parameters should be 2-Parameter.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 5499, 2013.