

Interactive comment on “Patterns and trends of high-impact weathers in China during 1959–2014” by J. Shi et al.

Anonymous Referee #2

Received and published: 5 November 2015

This is a highly ambitious effort to detect patterns and trends of "High Impact Weathers" (snow, thunderstorms, fog and hail) for China for the past 50 years approximately. The data base used is indeed impressive with daily values for more than 600 stations which add an important degree of robustness to results despite some problems such as for example the low density of stations in the Western areas of the country. Therefore I would be a little cautious regarding generalization for Tibet and Xinjiang given the paucity of stations there and the difficulties of extrapolating for certain weather phenomena (Hail, thunderstorms) that may be highly localized. Perhaps the authors could address and discuss this limitation in the revised version of the manuscript. In my opinion, the authors improve the English as well. Some statements are awkward. For example point 3.3.1 "The variation in annual average number of processes of high

C2182

impact weathers". Or, in the conclusions (p. 6169) "Spatially snowfall days and snowfall weather processes were more in northwestern....." I have two more substantive comments. First, although the authors make an effort to contrast their findings with cases in other countries, the case of snow is not discussed in comparative terms. Adding this would complete this interesting comparative discussion. My second concern is perhaps more relevant: the main focus of the paper is on frequency but given the constant justification of the findings for natural hazard management in China, I am a bit surprised that relatively little is said about intensity. In other words, given the mounting losses caused by extreme weather phenomena around the world and in China in particular I wonder whether the authors could examine the hypothesis launched for other areas of the world in which hazardous weather events may be diminishing in number but increasing in intensity and impacts.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 6149, 2015.

C2183