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Natural Hazards and Earth System Sciences
Discussions

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

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Dear anonymous referee #2, thank you for your helpful comments and suggestions. Considering the weather stations in western China, especially in Tibet and Xinjiang are relatively sparse, and some weather phenomena such as hail and thunderstorm are highly localized, the extrapolating of these weather phenomena is difficult and the results have some uncertainty, so we will give a further discussion of this limitation in the revised version of the manuscript. Meanwhile, we will add a comparative discussion of the frequency of snowfall event between our findings and those from other countries in the revised manuscript. In China, some weather phenomena have long-term records of their intensity, such as snow depth, but other weather phenomena have not long-term

and continuous digital records of their intensity, for example, the lowest visibility caused by fog and lightning density. There are only a few relevant text descriptions of the intensity of such events. From the available references, we also could not conclude that the trend of the intensity of extreme weather phenomena has increased consistently, for example, the long-term trend of hailstorm size was statistically insignificant in China (Xie et al., 2010); annual mean snow depth and snow water equivalent increased insignificantly over China as a whole (Ma and Qin, 2012). Negative consequences of hazardous weather events are the result of both the frequency and intensity of the events and the vulnerability of the society and ecosystems at risk exposed. As more people and physical assets are located in areas of high risk, exposure and vulnerability to extreme weather phenomena are increasing, and the damage potentials have increased around the world and in China in particular in recent decades. In the revised manuscript, we will add the discussion on the change of intensity and impacts of extreme weather phenomena in China based on more available references. We will also polish our manuscript again to make it more precise, smooth and interesting. Thanks again for your comments.

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