

## ***Interactive comment on “The characteristics of lightning risk and zoning in Beijing simulated by a risk assessment model” by H. Hu et al.***

**H. Hu et al.**

hbhu@ium.cn

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Thanks for the comments which will undoubtedly improve our paper.

1. Page 4119, lines 18-19 and 25: The authors mention “accurate” angular localization. This wording is undefined. The accuracy of direction finding is typically several degrees and, thus, quite bad. However, for the present analysis, the VHF part of Safir is not relevant as it is unable to detect CG strokes. For the present paper, only CG strokes are relevant, and these are detected by the LF part of the Safir system. Thus, when the authors comment location accuracy of the LF part of the used Safir system, they should clearly refer to the LF part and clarify whether the LF part uses direction finding or TOA techniques. The location accuracy is claimed to be better than 1 km. This is

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in marked contrast to all data comparisons between Safir and more modern systems. Maybe the authors just clarify that the quoted accuracy may reflect a manufacturer expectation. Reply: The “accurate” here is improper, so we delete it. The SAFIR 3000 surely uses the TOA techniques for characterizing the CG. We have corrected it. The location accuracy is determined by the coverage of the stations. Because the distances between two of the sensors of SAFIR are only about 126-145 km, the accuracy is nearly 1-2 km in most areas of Beijing (Seeing the appended figure 1). We have corrected it.

2. Page 420, line 11: The reported parameters are latitude and longitude, not altitude and longitude. Safir is no 3D system. Reply: The parameters include the latitude and longitude, as well as the altitude which is only for CG lightning. We have corrected it.

3. Page 420, line 17: Quotation of a density with 4 decimals is not meaningful except when the error would be accordingly small. Since the error is significant, 1.7998 should be given as 1.8 fl/qkm/year. Reply: Accordingly, we have corrected it.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 4115, 2013.

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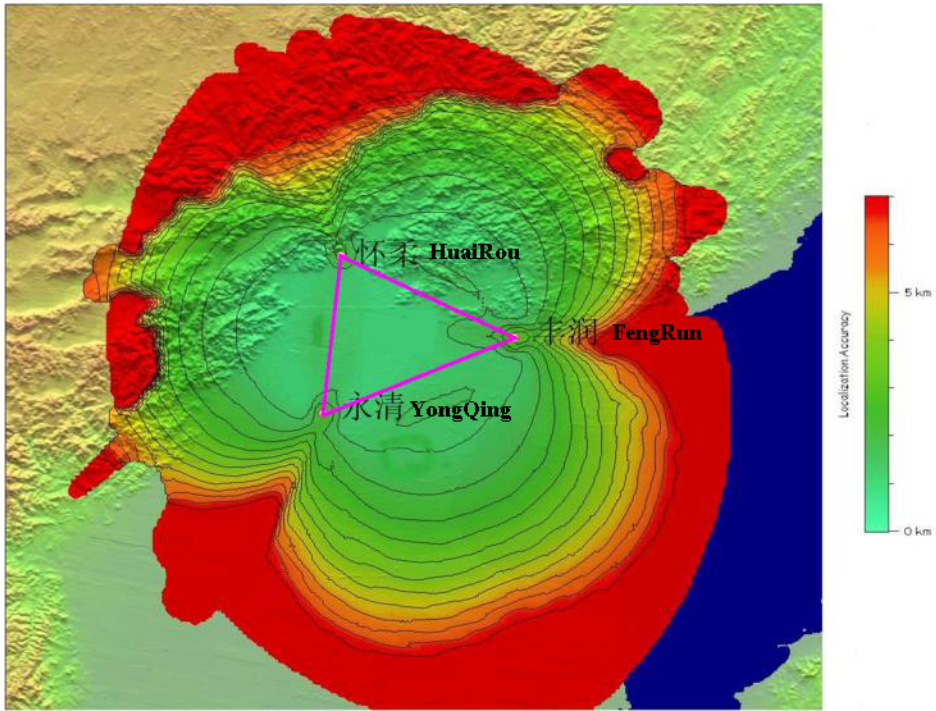


Fig. 1.

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