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# *Interactive comment on* "The VLF transmitters' radio wave anomalies related to 2010 Ms 7.1 Yushu earthquake observed by DEMETER satellite and the possible mechanism" *by* Shufan Zhao et al.

**Anonymous Referee #2**

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Review of "The VLF transmitters°Âű radio wave anomalies related to 2010 Ms 7.1 Yushu earthquake observed by DEMETER satellite and the possible mechanism" by Shufan Zhao et al.

The paper examines the potential effect of earthquake on VLF transmitter signal. Comparison of DEMETER observation and full wave simulation is made to demonstrate the hypothetic mechanism that earthquake induced enhancement of lower ionosphere density leads to the reduction of observed transmitter signal strength. Overall the results are interesting and potentially of great implication. While simulation results are reasonable, one challenging task in the manuscript is to establish that the SNR vari-



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Discussion paper

ation analyzed is related to Yushu earthquake. The reviewer has the following comments.

Regarding SNR calculation. The authors may want to examine the sensitivity of their results on the chosen delta_f to verify the variation of SNR is consistent. It may be useful to compare the variation of SNR within the circles marked in Figure 3 and that outside the circle to verify that the associated SNR variation is due to the earthquake.

line 39. incomplete sentence. maybe removing parentheses. line 40. Among those works, .... line 106. need unit for the preparation zone rho

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Interactive comment on Ann. Geophys. Discuss., https://doi.org/10.5194/angeo-2020-7, 2020.



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