

Interactive comment on “Brief Communication: An exclusive example of surface latent heat flux variation before Russia M6.1 earthquake” by Y. Jie and G. Guangmeng

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Received and published: 24 February 2014

We agree this reviewer’s suggestion that meteorologists should be involved in such work as they understand the atmospheric parameters more comprehensively than a geologist. As we said in another paper, meteorologists do not study earthquake, and geologists do not study meteorology, so in the cross intersection, research paper is few. Fortunately in recent years it is increasing.

1. It is possible that the presence of cloud, and a SLHF anomaly ACTUALLY RELATED TO THE EARTHQUAKE, simply coincided by chance i.e. both occurred at the same

C84

time here. I don’t know of any way you could separate these from each other but some discussion of this is missing.

R: As the reviewer has given such question, so with the method we published before, the clouds is not stationary in 6 hours, it is moving, so we consider that this cloud is not related with the quake. Again, this paper’s aim is not to study the relation between cloud and quake, the aim is to remind scientists to notice the clouds and weather interference. To SLHF, it is raining on Oct 9, 2011, we can not exclude the possibility that the high SLHF is due to weather change. Because the weather change can lead to high SLHF, the earthquake can also lead to high SLHF. Some earthquake researchers prefer to that it is caused by earthquake, but they can not exclude the effect of raining. That is why we write this paper. If the high SLHF appeared in a clear day, we agree their conclusion. But here it is a rainy day. This will lead to ambiguity. So we suggest re-examining previous claims of SLHF anomalies prior to earthquakes.

2. The point about the possibility of the clouds being directly related to the earthquake is brushed over. I am reserved in my opinion on earthquake clouds but I think a little more discussion of this potential would be useful.

R: With the method we published before, the clouds is not stationary in 6 hours, it is moving, so we consider that this cloud is not related with the quake.

3. A number of still controversial statements are made (e.g. that stress accumulation prior to an earthquake will result in thermal emissions). The controversy surrounding such claims should probably, at least, be acknowledged (e.g. pg. 2, line 17)

R: Yes, we agree that this point is still in controversial. We have made some corrections.

Other points: -I’m not sure the title actually relates to the content - consider amending it.

R: The title does not mean the SLHF is related with the quake, or not, just point the SLHF variation.

C85

-The paper would benefit from typos and small grammatical issues being ironed out with English proof-reading. There are too many small errors to point out: they don't stop understanding but are grammatically incorrect.

R: Yes, we will make corrections about these grammar errors.

-Pg. 3 line 17 – add 'respectively' -Pg 4 line 6 – can you be more precise than 'cold and wet' – how cold, how wet? -Pg 5 line 15 – solidification is not the word. Do you mean condensation?

R: The mean temperature in N54, E124 in October is -4 °C. Yes, it is condensation.

At all times figures should be referred to by their number. All figures need to be improved: add axis titles, improve appearance (standardize them). Improve annotations in some cases (e.g. Fig 2: be more specific than 'SLHF change'). Fig. 4 annotation: spelling of 'epicentral'. Could we also: - add some place names (it's hard to determine where this location is) – perhaps a wider scale map as an insert to show the precise geographical location - overlay the locations of the clouds? Fig 5. This figure is quite unclear. Can it be clarified. Also: add some place names (it's hard to determine where this location is) – perhaps a wider scale map as an insert to show the precise geographical location.

R: We will amend the figures as the reviewer's suggestions.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 347, 2014.