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Climate of the Past Discussions

Interactive comment on "China's historical record in the search of tropical cyclones corresponding to ITCZ shifts over the past 2ka" *by* Huei-Fen Chen et al.

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This manuscript uses historical records to reconstruct tropical cyclones in China over the past two thousand years. The authors utilized keyword searches to find mentions of cyclones, using period specific terms. The search was done on the data in "A Syllogism of China's "Meteorological Record over the past 3000 Years". The authors show how these weather systems varied over the past two thousand years, and how it related to other major climate trends like the Southern Oscillation, Medieval Warm Period, and the Little Ice Age.

The manuscript does a few important things. It adds to the growing climatology liter-

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Discussion paper

ature that combines paleo historical methodologies. It does an excellent job demonstrating how long of a period can be covered by applying creative and novel methods to historical records. It also brings attention to the fact that appropriate records exist for a wide range of locations and periods.

The manuscript could be greatly enhanced by a deeper discussion of the data. An extra paragraph or two in section 2: “Paleo typhoon records from China’s official historical documents” that discussed “A Syllogism of China’s “Meteorological Record over the past 3000 Years” (Zhang, 2013) would be ideal. This could discuss the original data, how it was digitized, and its limitations. I was not able to find any other references to it in english. If it is possible to access this data, information how to do so would be very useful. Since it is such a rich and important source of data, a discussion here would be valuable to many readers. This will also help show that the authors did their due diligence, even though there does not seem to be a historian on their team.

Most of what is presented here amounts to histograms and frequency counts. This seems like the logical first phase in analyzing the data. However, if there is future work planned with this data, that could be made more clear. Alternatively, the data could be used with another data set to validate that being used. There are many ways this could be done. For instance, correlating or regressing the data with the SOI data used in Figure 7 would probably be sufficient. This could produce confidence intervals to show the reliability of the data.

Minor notes:

“Syllogism” in Zhang 2013 is misspelled in the references.

A reference to figure 1 on line 109 would be useful.

The map in figure 1 is very difficult to read and is missing basic cartographic elements. I would suggest zooming into the region, adding a regional map in the northwest corner, changing the fill color of the provinces to white, and changing the text color to black.

It might be useful to run the coastline shapefile through a simplifying or smoothing algorithm to get rid if the thicker black lines there.

In figure 6: it is not clear in the caption what the red line represents. This could be added to the legend with the trend line.

In figure 7: extend the axis line of (d) to match the other elements

This review was done by my graduate student Greg Burris.

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