

## Interactive comment on "Responses of atmospheric circulation to sea surface temperature anomalies in the South China Sea" by M. Zhou and G. Wang

## Anonymous Referee #1

Received and published: 21 August 2015

## **General Comments**

The authors describe the influence of SST changes in the South China Sea to atmospheric circulation patterns. With a simple atmospheric model they calculated the effect of six different kind of changes. To take the results as a solid answer to the question on the influence of SST changes in the South China Sea to atmospheric circulation world wide is not possible. This is because the applied model is too simple and does not include feedbacks to for instance physical processes in the atmosphere. I take this study as a sensitivity experiment which shows that there is a potential to certain circulation changes without using a sophisticated general circulation model. I guess this is also one intention of the authors. I hope the present work will trigger future studies

C586

with complex general circulation models. The paper is well structured. The authors keep their focus and clearly describe the steps and results of their study. I recommend to publish the manuscript with taking into account just the few minor comments listed below.

**Technical Comments** 

Page 1696, line 8 Renolds -> Reynolds

Figure 1 Please use less numbers in the longitude legend. Presently it is hard to read.

Interactive comment on Ocean Sci. Discuss., 12, 1693, 2015.