The authors wish to thank the editors and reviewers for their effort in reviewing our manuscript. We appreciate the constructive criticisms, and we hope the changes listed have made the manuscript suitable for publication.

Referee 2:

General Comments:

This paper attempts to investigate the impact of ENSO regimes (CPW, EPC, EPW, conventional ENSO, and ENSO Modoki) on precipitation in China through studying PARS (precipitation anomaly index during rainy season).

Major comments

1) ***Comments:***

First of all, why authors have only focused on precipitation anomaly in their approach? The description is not convincing. What about composite wind vectors at 850 mb? Is it a common approach to use these two measures to evaluate ENSO intensity and direction? I think this part of the paper needs more description and the current shape is not convincing. Also, what was the advantage of using NOAA extended reconstructed

Thanks for the comment.

a) It is true that the reason why we have only focused on precipitation anomaly in our approach is unclear. A brief introduction is presented after the paragraph at ***Page 5, Line 122*** as:

"Precipitation anomaly can present the difference of precipitation between ENSO years and normal years and demonstrate the influence of ENSO regimes on precipitation more directly. Zhang et al. (2013) used precipitation anomaly index to explore the effect of ENSO on precipitation in the East River Basin, South China. Zhang et al. (2016a) investigated the influence of ENSO and ENSO Modoki on seasonal precipitation over the Huaihe River Basin by using precipitation anomaly index. "

b) We agree that the reason why choosing 850-mb vector winds to analyze circulation and monsoon is missing. A brief introduction is presented after the paragraph at ***Page 3, Line 67*** as:

"850hpa wind variability is associated with SSTA in the equatorial Pacific and precipitation anomalies in China (Zhang et al., 1999;Zhou and Chan, 2007;Wang et al., 2004;Zhang et al., 2016b). Fan et al. (2013) pointed out that 850 hPa vector winds are related to the moisture transportation from western tropical Pacific to the subtropical region, which determines the precipitation over the Yangtze-Huai River Valley region. Huang et al. (2004) and Zhang et al. (2014a) presented the atmospheric circulation and monsoon variability by the composite distribution of wind anomalies at 850 hpa in different phases of El Niño and La Niña to explain precipitation variation in China. Feng et al. (2011) compared the difference of 850 hPa wind anomalies in decaying ENSO and ENSO Modoki phases to explain the physical mechanism of seasonal precipitation variation in China. Hence, 850 hpa vector winds reflecting atmospheric circulation and monsoon variability is used to explore the underlying causes of precipitation anomalies in this study. "

Therefore, it is a common approach to use these two measures to evaluate ENSO intensity and direction.

c) The advantage of using NOAA extended reconstructed data

The Extended Reconstructed Sea Surface Temperature (ERSST) dataset is a global monthly sea surface temperature dataset derived from the International Comprehensive Ocean–Atmosphere Dataset (ICOADS). It is produced on a 2 ° × 2 °grid with spatial completeness enhanced using statistical methods. The newest version of ERSST, version 4, used in this study, is based on optimally tuned parameters using the latest datasets and improved analysis methods (Liu et al., 2015;Huang et al., 2016). ERSST is suitable for long-term global and basin-wide studies, and smoothed local and short-term variations are used in the dataset.

Minor comments

1) ***Comments:***

Figures 5, 6, and 7 are not blue shaded but gray shaded.

Response

Thanks for reading thoroughly. It has been corrected.

2) ***Comments:***

Line 29, “China is an ENSO-sensitive country and prone : : :.”, how so? a reference will help. As it is in introduction, it should be more convincing.

Response

Thanks for the comment. We agree that the statement needs to be expanded to be made more clearly. We have now revised the paragraph at ***Page 2, Line 29*** as:

“China is an ENSO-sensitive country and prone to flood and drought occurrence (Zhang et al., 2016a;Feng et al., 2011;Feng et al., 2010;Wang and Wang, 2013;Zhang et al., 2014b;Feng and Li, 2011)”

3) ***Comments:***

Line 66, “As a consequence, the investigation of : : :” there is a missing piece that can connect using composite wind vectors at 850 mb to the investigation of atmospheric circulation.

Response

Thanks for the comment. We have added a piece after the paragraph at ***Page 3, Line 67*** as to connect using composite wind vectors at 850 mb to the investigation of atmospheric circulation.

“850hpa wind variability is associated with SSTA in the equatorial Pacific and precipitation anomalies in China (Zhang et al., 1999;Zhou and Chan, 2007;Wang et al., 2004;Zhang et al., 2016b). Fan et al. (2013) pointed out that 850 hPa vector winds are related to the moisture transportation from western tropical Pacific to the subtropical region, which determines the precipitation over the Yangtze-Huai River Valley region. Huang et al. (2004) and Zhang et al. (2014a) presented the atmospheric circulation and monsoon variability by the composite distribution of wind anomalies at 850 hpa in different phases of El Niño and La Niña to explain precipitation variation in China. Feng et al. (2011) compared the difference

of 850 hPa wind anomalies in decaying ENSO and ENSO Modoki phases to explain the physical mechanism of seasonal precipitation variation in China. Hence, 850 hpa vector winds reflecting atmospheric circulation and monsoon variability is used to explore the underlying causes of precipitation anomalies in this study. ”

4) ***Comments:***

Line 115, “The definition of ENSO Modoki and conventional ENSO was demonstrated.” Not clear to me what authors wanted to highlight by this.

Response

Thanks for the comment. The purposes to demonstrate the definition of ENSO and ENSO Modoki is:

a) Show the difference of ENSO and ENSO Modoki.
b) Facilitate readers and other researchers to have a better knowledge of the research process, and the judgment of ENSO and normal years is based on their definitions.

5) ***Comments:***

Line 186, authors stated that “spatial patterns of PARS under ENSO regimes may not only be determined by ENSO but also by the combination of various drivers” is it a result/finding of this study? Is there any other study that supports the idea?

Response

Thanks for the comment. It is not a result of this study, there are other studies to support the idea, which has been presented at ***Page 8,*** Lines ***181-185***.

“Xu et al. (2016) revealed that increasing autumn precipitation in southern China is due to the combined ENSO and Indian Ocean Dipole (IOD) events. Other researchers also concluded that IOD and ENSO have mutual impact on precipitation anomalies in China (Weng et al., 2011; Liu et al., 2009; Wu et al., 2012). Moreover, Pacific Decadal Oscillation, subtropical high, also influence the distribution of Chinese precipitation (Chan, 2005; Wang et al., 2008; Chang et al., 2000; Niu and Li, 2008; Ouyang et al., 2014).”

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