

**Minor Concerns:**

- (1) Lines 355-356: "NLSA-based MISO indices have...higher memory and higher predictability." This should be briefly explained.

**Thank you for your suggestion. More explanation has been added: "The hindcasts of these indices using operational extended-range output show that NLSA-based MISO indices remain predictable out to ~ 3 weeks while other indices only have ~2 weeks predictability."**

- (2) Lines 521-522. Having the model simulate a single tropical cyclone over the Arabian Sea which did not occur in nature is not a model bias. A model bias would refer to the tendency of the model to produce significantly more or fewer cyclones than in nature, but that apparently is not the case. That the model can actually generate its own tropical cyclone is probably strength of the model.

**Thank you for your advice. We agree with you and have improved the statement as: "Results show that WRF-gray could reproduce the spatial patterns of the monthly rainfall in each year and well capture the monsoon rainfall centers over West Ghats, central India, Himalaya foothills and the west coast of Myanmar. However, biases of rainfall intensity and position can still be found in WRF-gray."**

- (3) Lines 538-541. The role of initial conditions is not well expressed. The fact that perturbations in the initial conditions lead to changes in the characteristics of the ISO and MISO may say something real about their predictability. The model bias is by definition an expression of the model error averaged over many initial conditions.

**Thank you for your suggestion. The related statement has been improved as: "The ISM simulation at gray zone resolution is also sensitive to its initial conditions. More comprehensive investigation on the predictability of the ISO and MISO in RCM at gray zone resolution is deserved future studies."**

**Grammar:**

- (1) Line 59: "...to the agricultural and industrial productions..." should be "on agricultural and industrial production..."

**Done**

- (2) Line 66: "...and characterized..." should be "...and is characterized ...."

**Done**

- (3) Lines 71-72: "... also has considerable influences on the onset and withdrawal of the ISM, which, in another word, determining the length of the rainy season" should be "...also have a considerable influence on the onset and withdrawal of the ISM. In other words, these MISO phases determine the length of the rainy season"

**Done**

- (4) Line 84 "lager" should be "larger"

**Done**

- (5) Line 85 "...for tropical cyclones forecast" should be "for tropical cyclone forecasts"  
**Done**
- (6) Line 87: "which also leads" should be "leading to "  
**Done**
- (7) Line 89: "the way" should be "one way"  
**Done**
- (8) Line 114: "and affects" should be "which affect"  
**Done**
- (9) Line 134: "avoid using" should be "avoiding the use of"  
**Done**
- (10) Line 151: "While the sponge layer" should be "The sponge layer"  
**Done**
- (11) Line 152 "and prevent the upward propagating gravity-wave energy be bounced back to the troposphere" should be: "and prevents upward propagating gravity-wave energy from being reflected back to the troposphere"  
**Done**
- (12) Line 166: "than YSU scheme" should be "than the YSU scheme"  
**Done**
- (13) Line 167: " is still deserve" should be "still deserves"  
**Done**
- (14) Line 168: "quantifiactions" should be "quantification"  
**Done**
- (15) Line 193 "similar with WRF-gray except" should be "to that of the WRF-gray configuration, except that a"  
**Done**
- (16) Line 213: "It shows that" should be "These results show that"  
**Done**
- (17) Line 214: "better simulation of" should be "a better simulation of the"  
**Done**
- (18) Lines 214-215: "also have considerable" should be cut.  
**Done**

(19) Lines 215-216: "which will be discussed in details" should be "a finding that will be discussed in detail"

**Done**

(20) Line 251: "that driving" should be "that drive"

**Done**

(21) Line 270: "It is" should be "This is"

**Done**

(22) Line 280: "most drought" should be "driest"

**Done**

(23) Line 283: "which are associated" should be "changes which are associated"

**Done**

(24) Line 293: "5-yr ISMs" should be cut.

**Done**

(25) Line 296: "which is" should be cut.

**Done**

(26) Line 298: "is poorer simulated" should be "is more poorly simulated"

**Done**

(27) Line 306: "Similar with" should be "Similar to"

**Done**

(28) Line 310: "Bay of Bangle" should be "Bay of Bengal"

**Done**

(29) Line 329: "with that in" should be "to that in"

**Done**

(30) Line 330: "reaches" should be "reaching"

**Done**

(31) Line 346: "developed" should be cut.

**Done**

(32) Line 374: "which is" should be cut.

**Done**

(33)Line 377: “amplitude” should be “amplitudes”

**Done**

(34)Lines 382-384: “(subtracted the mean daily rainfall of 5-yr monsoon seasons) obtained from TRMM observation based on the NLSA MISO indices. The phase composites are computed by averaging the significant MISO activities in each phase space occurred in the 5-yr monsoon seasons” should be: “obtained from TRMM observations based on the NLSA MISO indices. (The daily climatology used to define the anomalies is based on the 5-years.) The phase composites are computed by averaging significant MISO anomalies.”

**Done**

(35)Line 390: “tropic ocean” should be “tropical ocean”

**Done**

(36)Line 391: “West Ghats” should be “the western Ghats”

**Done**

(37)Line 394: “form” should be “forms”

**Done**

(38)Line 396: “northeast” should be “the northeast”

**Done**

(39)Line 398: “west coast” should be “the west coast”

**Done**

(40)Line 404: “which shows” should be “, showing “. “statistic reflects” should be “statistics reflect”

**Done**

(41)Line 432: “Besides the phase composite, the evolutions” should be “The evolution”

**Done**

(42)Line 434-435: “10-day evolutions of rainfall” should be: “The evolution of rainfall”

**Done**

(43)Line 442: “most area” should be “most areas”

**Done**

(44)Line 444: “negative with rainfall over” should be “negative while rainfall over”

**Done**

(45)Line 462: “which transports more” should be “transporting more”

**Done**

(46) Line 468: “lead to negative precipitation water” should be “leading to negative precipitable water”

**Done**

(47) Line 501: “Model domain” should be “the model domain”

**Done**

(48) Line 511: “is also stronger” should be “are also stronger”

**Done**