

## ***Interactive comment on “Evaluating the streamflow simulation capability of PERSIANN-CDR daily rainfall products in two river basins on the Tibetan Plateau” by Xiaomang Liu et al.***

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Comments In the manuscript, entitled “Evaluating the streamflow simulation capability of PERSIANN-CDR daily rainfall products in two river basins on the Tibet Plateau”, authors demonstrated an application study of a new satellite-based precipitation database and comparison with the precipitation from gauge-network. The study areas are on the Tibet Plateau and the gauge density is very sparse, which may not be a reliable data source for streamflow simulation and water resources management. The philosophy authors applies is to conduct evaluation via streamflow simulation from both precipita-

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tion sources and compare the simulations with streamflow gauge observation, which is believed to be more reliable than rain-gauges with regard to data length, accuracy, and continuity. The experiments are well designed and conducted, and the manuscript reads well. The following comments are suggested for author’s consideration. The previous reviewer #1 made a couple suggestive comments and I agree with most of the comments by reviewer #1. In details, (i) a comparison can be added to further strengthen the comparison. (ii) the evaporation simulation can also serve as the same logic to support authors’ arguments. After all, the streamflow and evaporation are two of the major components of water cycle. The hydrological model should be able to provide such information. (iii) In author’s reply to reviewer #1, authors also agree to provide the evaporation simulation/comparison in the revised manuscript. I am also interested to see the simulation results and comparison with other data sources. Is there a diagram or figure to illustrate the flow chart/conceptual configuration of the used HIMS hydrological model? By only reading text, reviewer finds it not intuitive on the model configuration. In addition, the manuscript still has few minor/editing issues that should be fixed before publication. In details: 1. Line 208-209: should be “There are two stopping criteria used in the SCE-UA algorithm ” 2. Line 212-213: suggest to add population size. 3. Line 231: there is an extra period. 4. Line 236: should be “the runoff coefficients are 0.29 for both PERSIANN-CDR and Gauge. . .” 5. Line 251: missing comma after “Aug.” 6. Line 254: missing “the” before “average annual amounts” 7. Line 281: should be “two data sources”. Basically, two datasets are same type as precipitation measures. 8. Line 301: replace “two basin” with specific names since it is the first sentence of a paragraph. 9. Line 360: there is an extra period 10. Line 360: should be “the bias between simulated and observed streamflow”. 11. Line 411: do authors mean “partially”? 12. Line 413: replace “the calibration period” by “calibration” 13. Line 416: replace “flood and drought conditions” by “extreme conditions, such as flood and drought” 14. Line 418: add parentheses to Figure subplot citations 15. Line 422: Last sentence maybe change to “Therefore, using such a product with long-term records as forcings to hydrological models, the confidence of simulated streamflow over the TB

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area will correspondingly increase.”

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