The 50-day forecast of low frequency rainfall in the lower reaches of the Yangtze River valley from Decmber 2014 to February 2015

(Scientific research, for reference only)

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The 50-day forecast of 20－30-day low-frequency rainfalls the lower reaches of the Yangtze River valley

Fig. 1 shows the 1–50-days forecast (dashed line) and observation during the period from November 12, 2014 to December 25, 2014 (solid line) of the 20–30-day low-frequency rainfall of the lower reaches of the Yangtze River valley (LYRV) with initial date December 25, 2014 by using the ECAR model (Yang, 2014), in which ECAR is established with first seven low-frequency principal components (PC1-PC7) of the global meridional wind anomaly of 850 hPa as the factors , and based on the data from November 6, 2014 to December 25, 2014. It is predicted that the 20–30-day low-frequency oscillation is weaker ,which is rainless over LYRV in January 2015, and the low frequency rainfalls over this region on the time scale of 20–30-days are the positive phases associated with the rainy (or snow) periods on January 14-25, 2015.

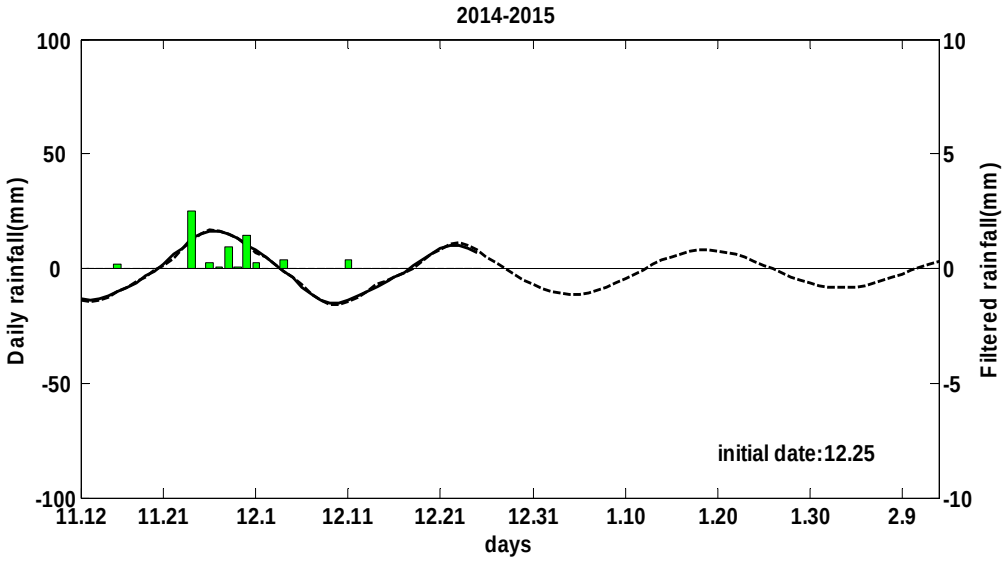

Fig. 1 Prediction (dashed line) and observation (solid line) of the 20—30-day rainfall over LYRV for the period from 1 into 50 days in the winter of 2014/2015 for ECAR model based on the principal components of the global low frequency the meridional wind anomaly of 850 hPa, and the bar represents the time series of the daily precipitation over LYRV(unit: mm) , initial date: December 25, 2014.

References

Yang Qiuming. Extended complex autoregressive model of low-frequency rainfalls over the lower reaches of Yangtze river valley for extended range forecast in 2013. *Acta Phys. Sin*, 2014,63(19),199202,doi：10.7498/aps.63.199202. (in Chinese).

http://wulixb.iphy.ac.cn/CN/abstract/abstract61022.shtml

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