

Extended Range Weather Forecast for the Period from November 5-10, 2020 in the Lower Reaches of the Yangtze River Valley (LYRV)

(Scientific Research Achievements for Reference Only)

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I. Forecast of 20- to 30- day Low Frequency Rainfall Component for October to November 2020 in the Lower Reaches of the Yangtze River Valley (LYRV)

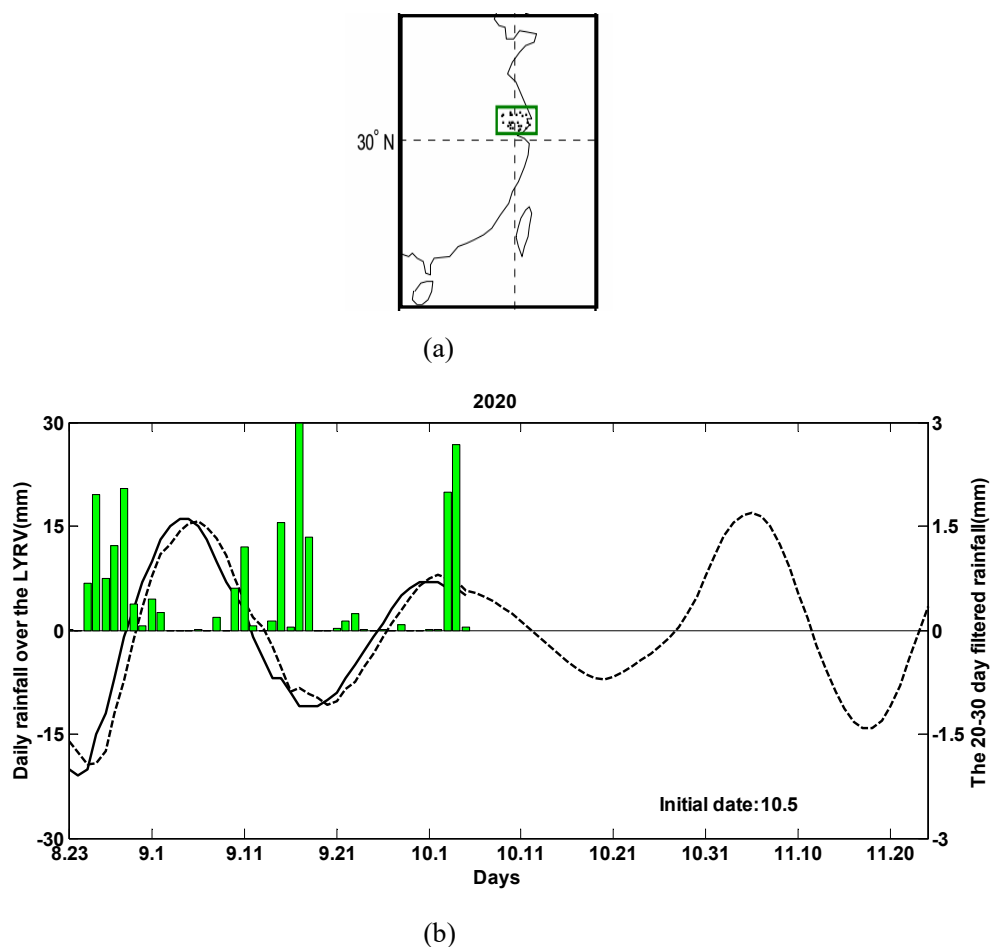


Figure 1. (b) Changes (solid line) and Forecast (dotted line) of 20- to 30-day Low Frequency Rainfall Component in 25 Stations (a). The column diagram is the day-by-day rainfall; unit: mm; initial date: October 5, 2020

It is predicted that the 20- to 30-day oscillation in the coming 50 days (October 6, 2020 to November 24, 2020) tends to be normal and strong, which is good for the apparent precipitation process in the Lower Reaches of the Yangtze River Valley (LYRV). From October 29, 2020 to November 12, 2020, the low frequency rainfall component is in the positive phase, which means that there will be a lot of rainfall, and even heavier in some areas. It will be in the negative phase from October 12 to 28 and November 13 to 23, 2020, during which there will be less rainfall and the cloudy weather will dominate. [Based on the MLR Model Forecast of 20- to 30-day Low Frequency Rainfall Component, and at the 850hPa in the global with the first four principal components of low-frequency meridional wind of PC1-PC4 to build the real-time

MLR, initial date: October 5, 2020; solid line: forecast of 20- to 30-day low frequency rainfall component in the Lower Reaches of the Yangtze River Valley (LYRV); dotted line: fitting and forecast].

II. Forecast of 30- to 60-day Low Frequency Temperature Component for the period from October to November, 2020 in the Lower Reaches of the Yangtze River Valley (LYRV)

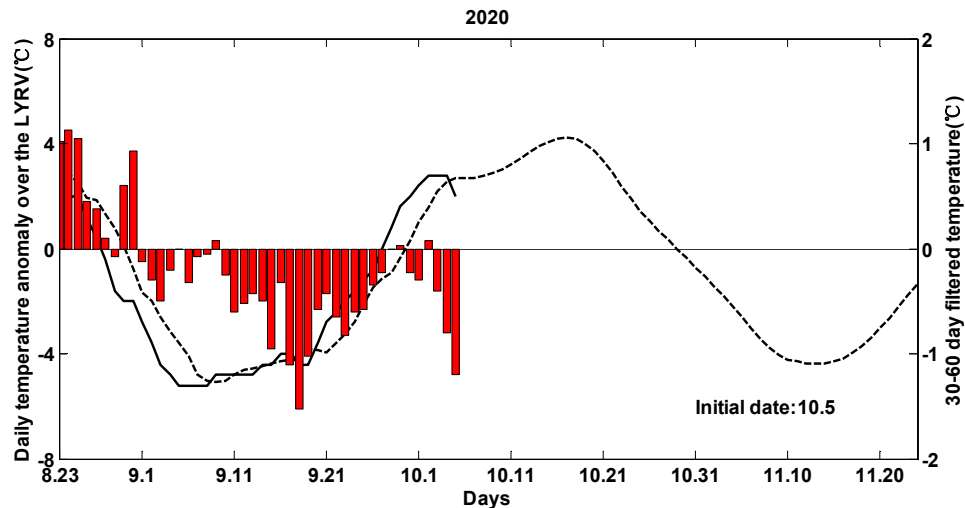


Figure 2. Changes (solid line) and Forecast (dotted line) of 30- to 60-day Low-Frequency Temperature Component in 25 Stations in the Lower Reaches of the Yangtze River Valley (LYRV), among them, the column diagram is the day-by-day temperature departure; unit: °C; initial date: October 5, 2020.

It is predicted that the 30- to 60-day oscillation in the coming 50 days (October 6, 2020 to November 24, 2020) tends to be stronger. From October 6 to 28, 2020 and from October 29 to November 24, 2020, it will be in the positive and negative phases of the low frequency temperature component, respectively, both of which are not conducive to severe cold air activity because the temperature in the LYRV will continue to be high and low with a few changes in frequency component. The temperature in the LYRV will be normally low in early November. [Based on the MLR Model Forecast of 30-60 d Low Frequency Temperature Component (at the 850hPa in East Asian region with the first three principal components of low-frequency temperature of PC1-PC3), initial date: October 5, 2020; solid line: forecast of 30- to 60-day low frequency temperature component in the Lower Reaches of the Yangtze River Valley (LYRV); dotted line: fitting and forecast].

III. Extended Range Weather Forecast for the 3rd China International Import Expo during the period from 5 to 10 November, 2020

It is predicted that on November 5, the weather will be cloudy to overcast with light to moderate rain, and the temperature will be normal and slightly higher than other times.

There will be a significant precipitation process with a moderate strength of rainfall in some areas during the period from November 6 to 7; and a moderate strength of cold air will occur on November 9 to 10, together with a precipitation process with a light to moderate rainfall.

The rainfall will be more than usual in the first ten-day period of November with extremely low temperature.