

# Analysis of Characteristics and Causes of Meiyu over the Yangtze–Huai River Basin in 2019

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Using the daily NCEP reanalysis dataset and the observations data of precipitation in China the characteristics of Meiyu over the Yangtze–Huai River Basin and its atmosphere circulation causes in 2019 are analyzed. The results show that: (1) In 2019, the onset date of Meiyu (June 16th) over the Yangtze–Huai River Basin was later than normal, the outset date (July 17th) was close to normal, and the duration was shorter. The Meiyu precipitation (intensity) was more (stronger) than normal in the south of the Yangtze river and less (weaker) than normal in the north of the Yangtze river. (2) Between June 8 to 15 the cold air activities were intensified. In correspondingly, the Northwest Pacific Subtropical High (NWPSH) was phased southward, the fore boundary of East Asia summer monsoon (EASM) lied south of normal with the northward march delated. The above caused the onset date later. (3) During the Meiyu season (especially in July 1 to 15), the coast trough of East Asia was deeper and the western ridge of NWPSH was further south and the water vapor transport and its convergence at low level was is more southward. Meanwhile the eastern ridge of the South Asia High and upper-level westerly jet was southward, the upper-level divergence was also southward. The above all caused the Meiyu intensity with the southern stronger and the northern weaker.

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