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The Possible Impact of El Niño Events of Different Types and Intensity on the Precipitation in the Following First Flood Season in South China

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Based on the meteorological industry standard [U+FF08] QT/T370-2017 [U+FF09] for El Niño events of different types and the latest monitoring standard of the first rainy season in South China issued by National Climate Center [U+FF0C] Using the NCEP/NCAR daily and monthly reanalysis data [U+FF0C] NOAA SST data [U+FF08] ERSST V4 [U+FF09] and the data of 261 meteorological observational stations in South China from 1961 to 2016 [U+FF0C] The relationship between El Niño events of different types and intensity and the precipitation in the following first flood season in South China and the characteristics of the atmospheric circulation and SST are analyzed by correlation and composite analysis methods. The results show that the impact difference is obvious between different types and intensity of El Niño events on the precipitation in the following first flood season in South China. In East Pacific El Niño events with medium and above intensity the onset data of the first rainy season in South China is early, the ending date is late , the duration is long, and the precipitation is more [U+FF0C] while in East Pacific El Niño events with weak intensity or Central Pacific El Niño events is on the contrary. The atmospheric circulation in the following first flood season in South China has obvious difference between medium and above intensity with weak East Pacific El Niño events or Central Pacific El Niño events, including westerly jet is strengthener in upper level, the polar vortex in northern hemisphere and the East Asia major deep trough are stronger, There is an anomalous anticyclone over east Philippine islands in middle-level, there is the moisture convergence area in South China where the winds of both the south and the north converge.