



Characteristics of tropical cyclone genesis in the western North Pacific during the developing and decaying phases of two types of El Niño

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During the developing phase of central Pacific El Niño (CPEN), more frequent TC genesis over the northwest quadrant of the western North Pacific (WNP) is attributed to the horizontal shift of environmental vorticity field. Such a northwestward shift resembles the La Niña composite, even though factors that cause the shift differ (in the La Niña case the relative humidity effect is crucial). Greater reduction of TC frequency over WNP happened during the decaying phase of eastern Pacific El Niño (EPEN) than CPEN, due to the difference of the anomalous Philippine Sea anticyclone strength. The TC genesis exhibits an upward (downward) trend over the northern (southern) part of the WNP, which is linked to SST and associated circulation changes through local and remote effects.