

Chen, G., and K. Wang, 2018: Why is the tropical cyclone activity over the western North Pacific so distinct in 2016 and 1998 following super El Niño events? *J. Meteor. Soc. Japan*, **96**, <https://doi.org/10.2151/jmsj.2018-013>.

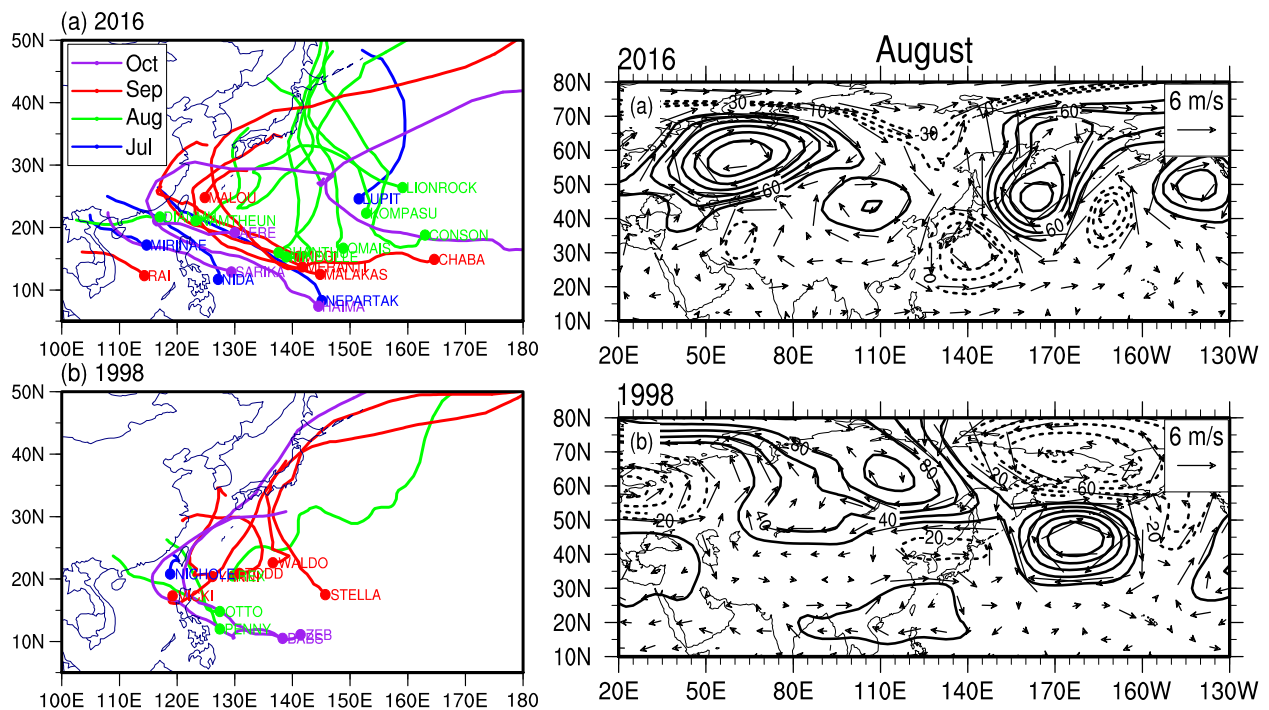


Figure 1. TC tracks and names during July-October in (a) 2016 and (b) 1998 are depicted. TC tracks in different months are plotted in different colors.

Figure 2. The anomalies of geopotential height (contour, gpm) and wind (vector,  $\text{m s}^{-1}$ ) averaged from 850 hPa to 300 hPa in August of (a) 2016 and (b) 1998.

- Although both the tropical cyclone (TC) peak seasons in 2016 and 1998 are in the decaying stage of a super El Niño, TC activities over the western North Pacific (WNP) exhibit vast differences. The TCs in 2016 feature more number, greater intensity and more distinct monthly variation of TC activity in contrast to those in 1998 (Fig. 1).
- The warm sea surface temperature anomaly over the WNP in 2016 had a higher magnitude and a more eastward extension than in 1998. Especially in August coincident with the enhanced Madden-Julian oscillation westerly phase, more TCs clustered within the eastward-extending convective belt. The mean longitude of TC genesis in 2016 shifted more eastward, favorable for the longer lifetime and greater intensity of the TCs.
- In August of 2016, the WNP subtropical high was suddenly separated into the two anticyclonic components between which the cyclonic circulation was pronounced. This sandwich-like structure can be attributed to the apparent Silk Road Pattern-like wave train. In contrast, an enhanced positive geopotential height anomaly occupied over the central Northern Pacific in 1998 (Fig. 2).