Supplemental Material

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The role of the Maritime Continent SST anomalies in maintaining the Pacific–Japan pattern on decadal time scales

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Figures

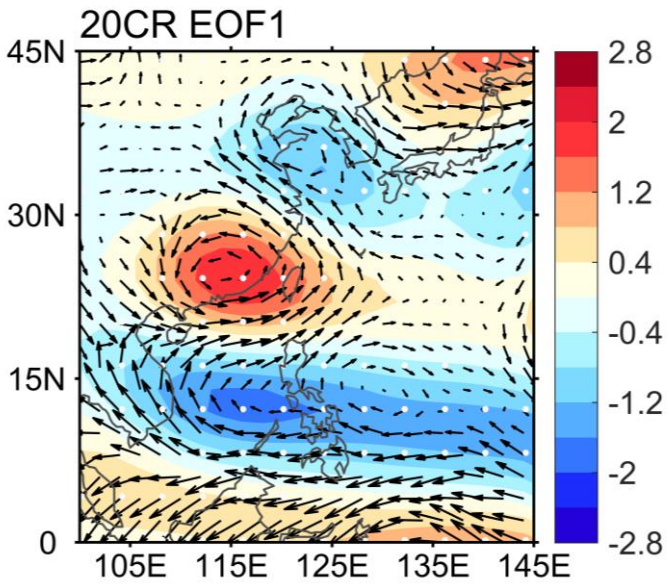

Fig. S1. The leading mode (EOF1) of JJA 850-hPa wind anomalies over the whole East Asia (0°–45°N, 100°–145°E) for the period of 1900-2012 from 20CR, in which the variability lower than 7 years has been removed. Shading implies relative vorticity anomalies (shading, 10^{-6} s^{-1}) regressed upon the corresponding standardized PC time series. White dots denote anomalies significant at the 90% confidence level.

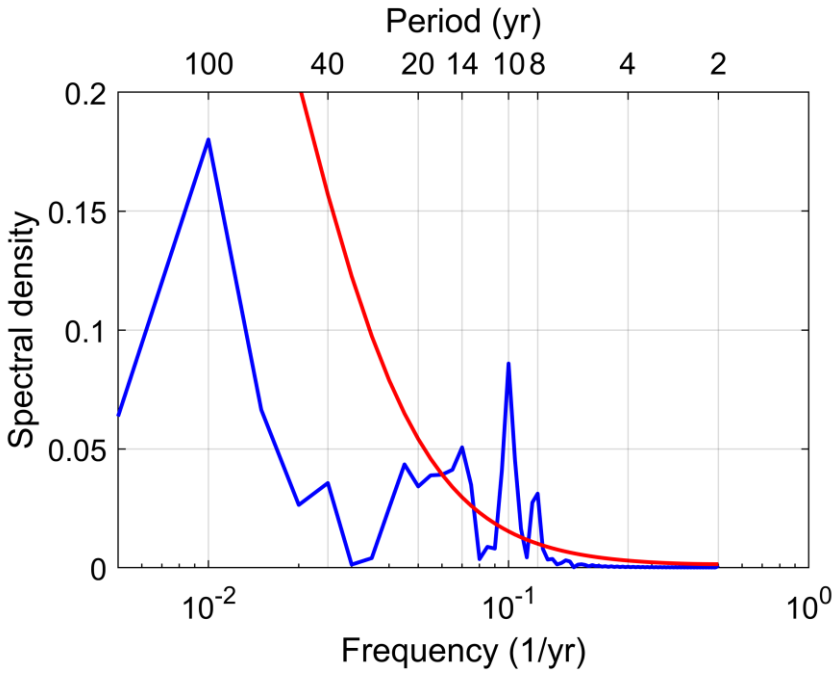

Fig. S2. The power spectrum of the MC SST index. The red curve denotes the 95% confidence limit from the red-noise estimation.

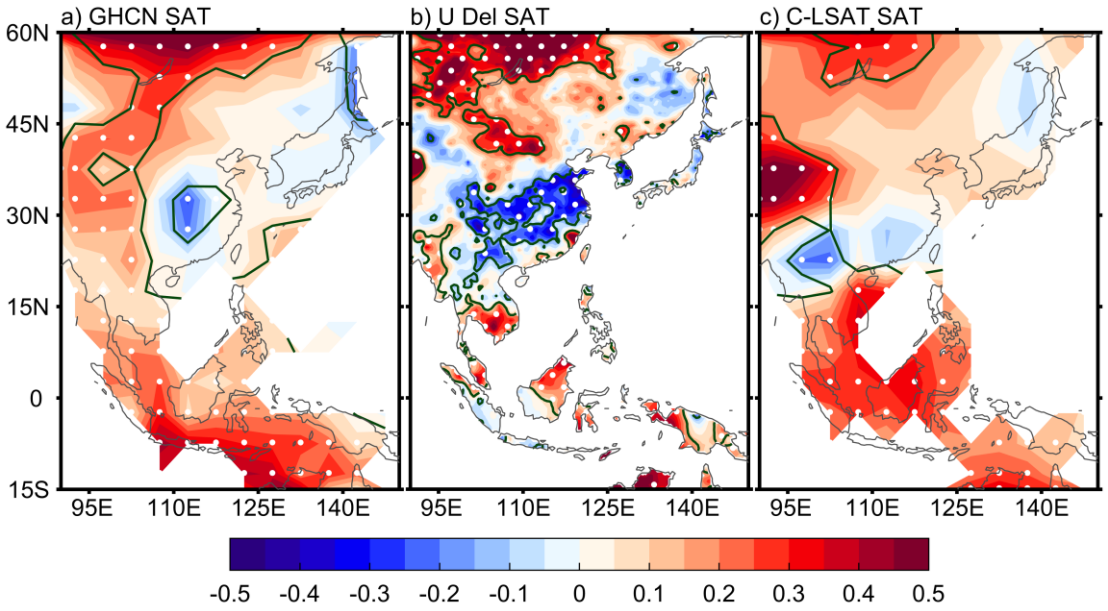

Fig. S3. Composites of JJA SAT anomalies (shading, ℃) from (a) GHCN, (b) U Del and (c) C-LSAT. The regions stippled by white dots and encompassed by green lines denote where the values are significant at the 90% confidence level. The composites show the differences for positive minus negative phases of the MC SST index in Fig. 2b.

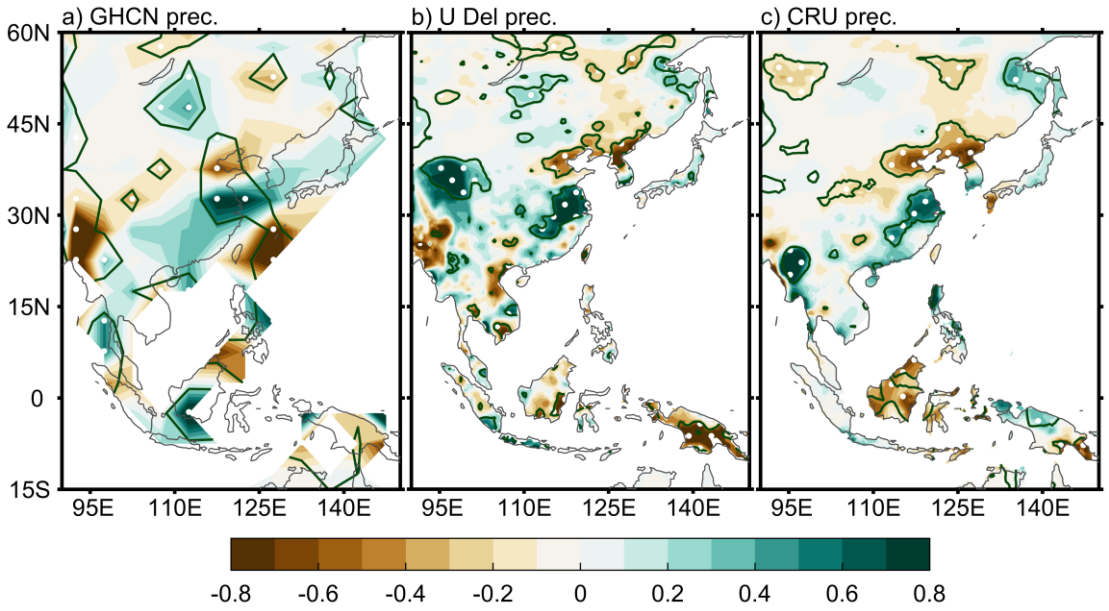

Fig. S4. Composites of JJA precipitation anomalies (shading, mm day^{-1}) from (a) GHCN, (b) U Del and (c) CRU. The regions stippled by white dots and encompassed by green lines denote where the values are significant at the 90% confidence level. The composites show the differences for positive minus negative phases of the MC SST index in Fig. 2b.

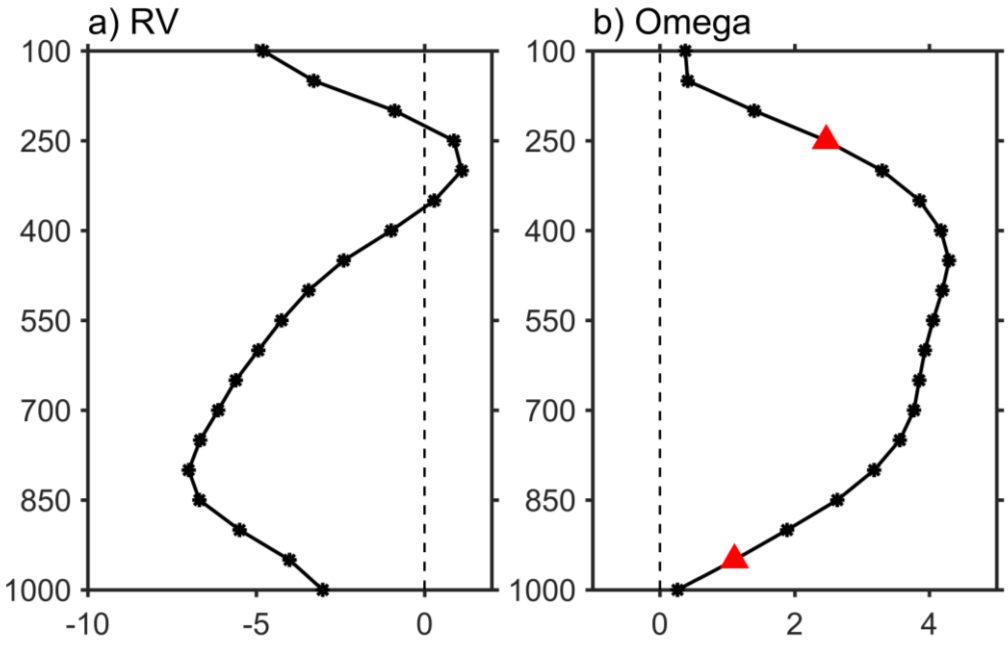

Fig. S5. Vertical profiles of regressed (a) relative vorticity (10^{-7} s^{-1}) and (b) vertical velocity (10^{-3} Pa s^{-1}) over the centers of anomalous anticyclone and subsidence, respectively. The red triangles represent the maximum/minimum gradient.

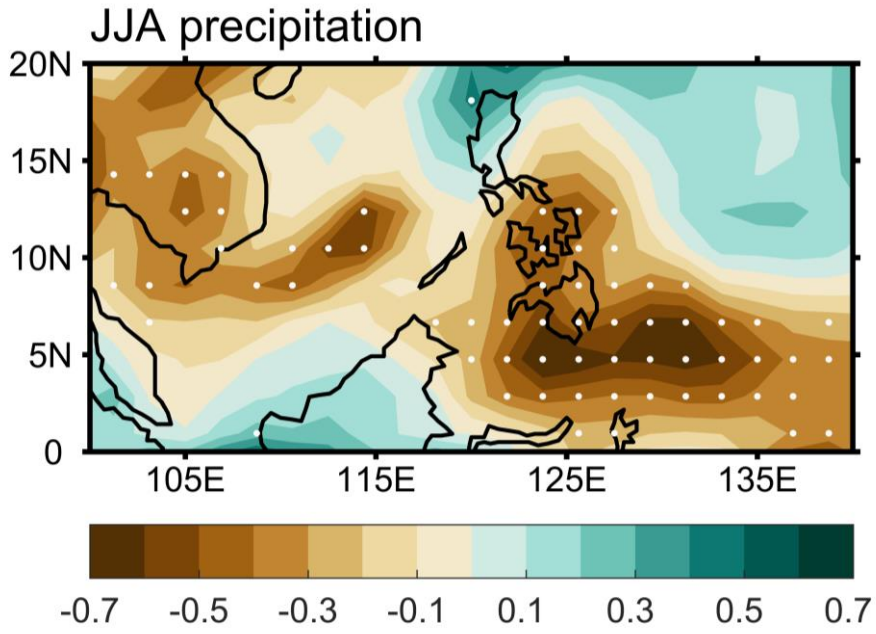

Fig. S6. Regression map of the SCS summer precipitation anomalies (shading, mm day^{-1}) onto the standardized MC SST index. White dots denote precipitation anomalies significant at the 90% confidence level.

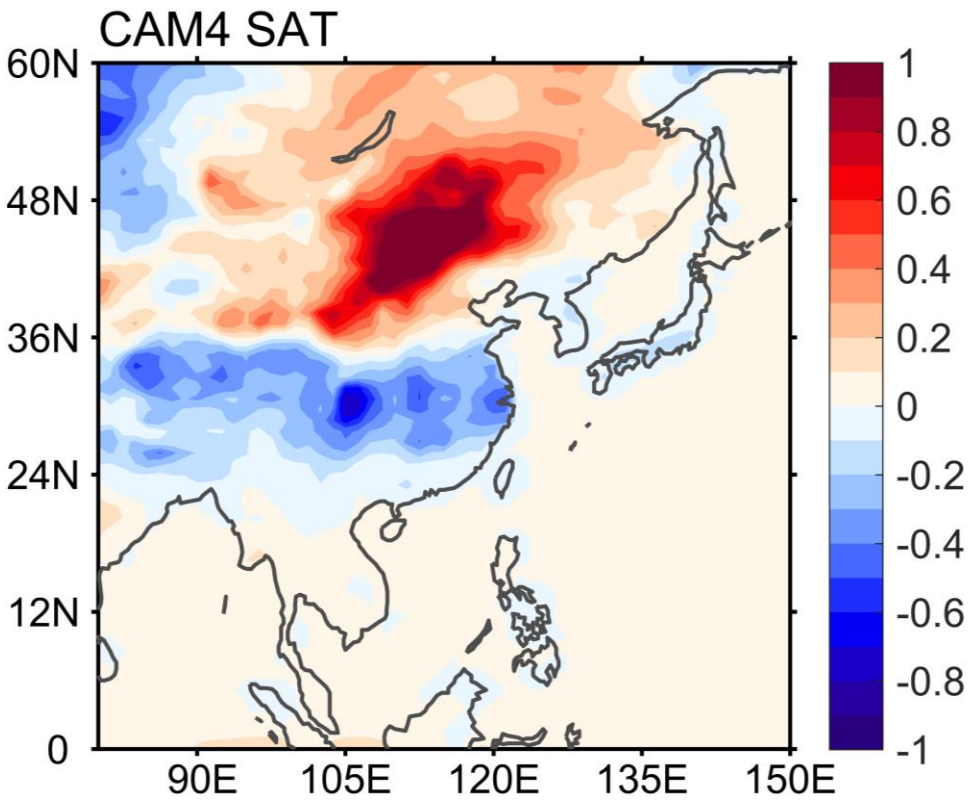

Fig. S7. The JJA mean SAT (shading, ℃) differences between the MC run and the control run.

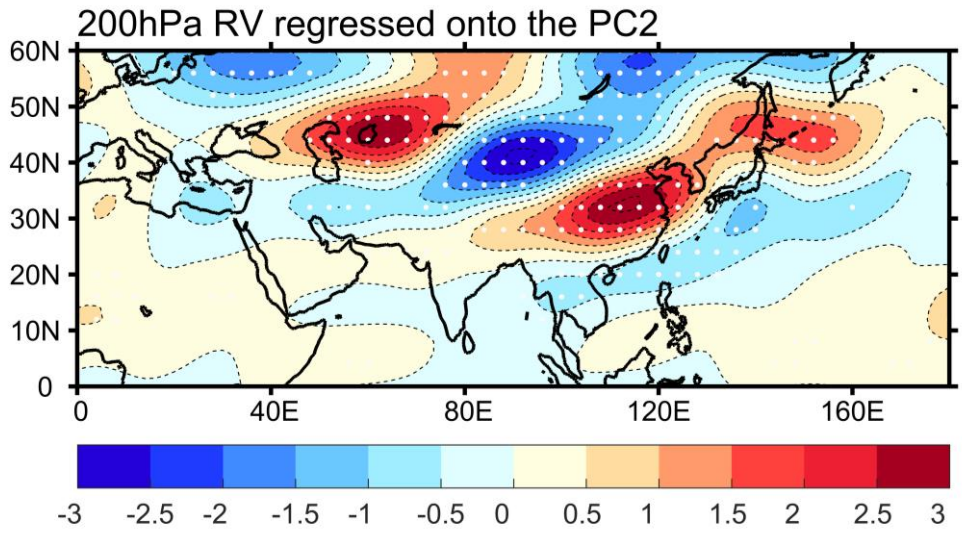

Fig. S8. Summer 200-hPa vorticity anomalies (shading, 10^{-6} s^{-1}) regressed onto the standardized PC time series of the second EOF mode, which is derived from the decadal variations of 200-hPa vorticity over the 30°–40°N, 80°–120°E.