The response of AUSM to precession forcing and its relation to

EASM and EAWM

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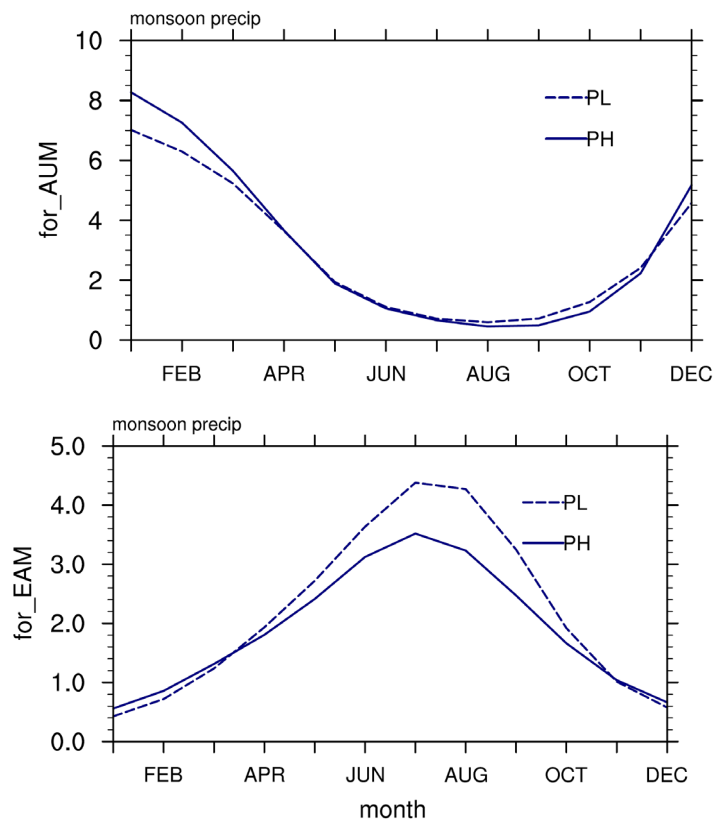*Corresponding author: jliu@njnu.edu.cn

Figure S1 Composite seasonal cycles of precipitation in east Asian monsoon regions (upper panel) and Australian monsoon region (lower panel) at high (solid line, PH) and low (dashed line, PL) precession stages.
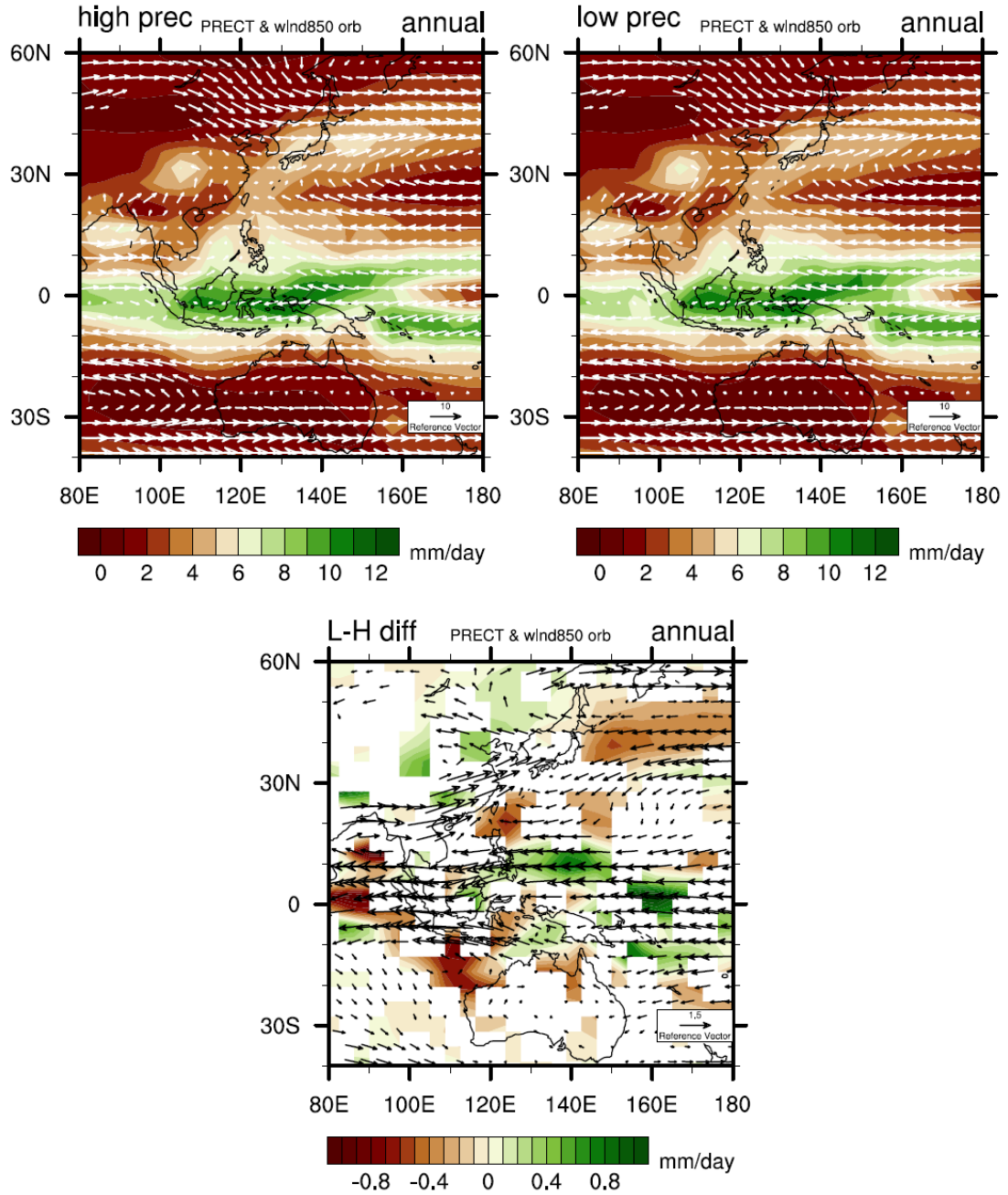
Figure S2 The composite maps of annual mean total precipitation rate (shading, PRECT) and horizontal wind at 850 hPa (vector, wind850) at high and low precession stages (a, b) and their anomalies (c). The anomalies are obtained between the low and high precession states (P_low - P_high). Only those values above 95 % confidence level are shown in (c).
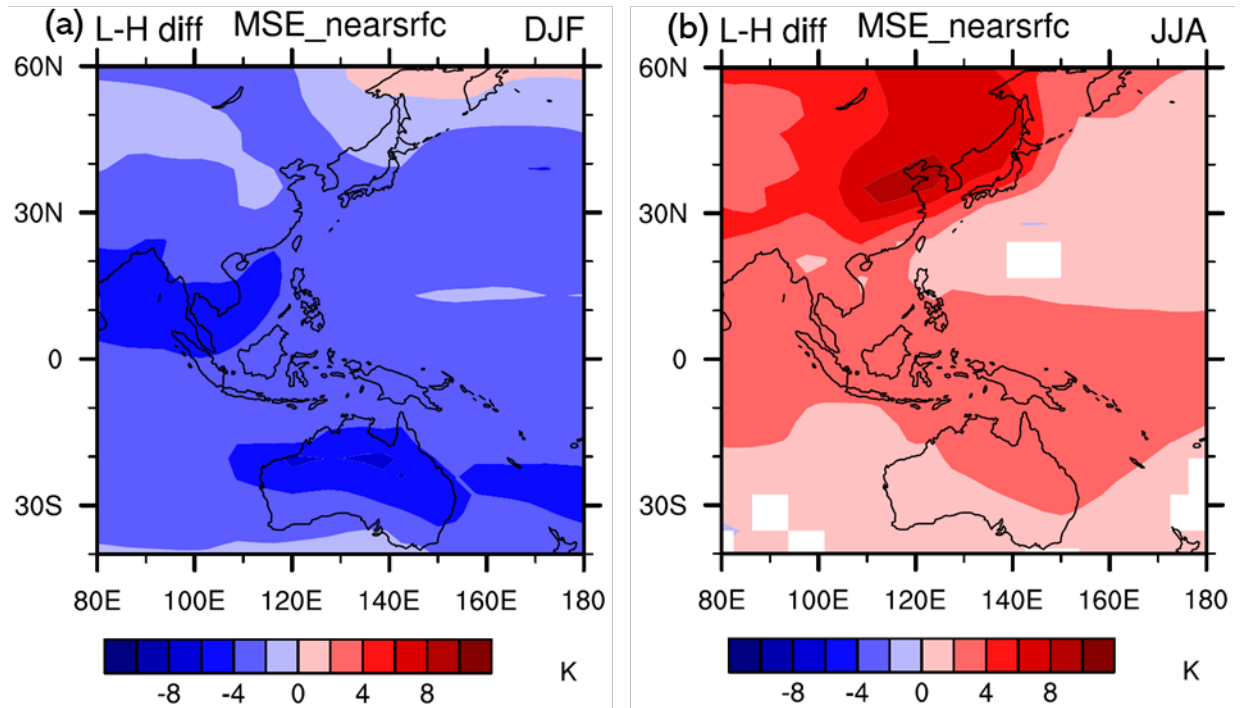
Figure S3 Composite maps of near surface moist static energy anomalies in DJF (a) and JJA (b). The composite anomalies are the differences between low (L) and high (H) precession states. Only those values above 95 % confidence level are shown.
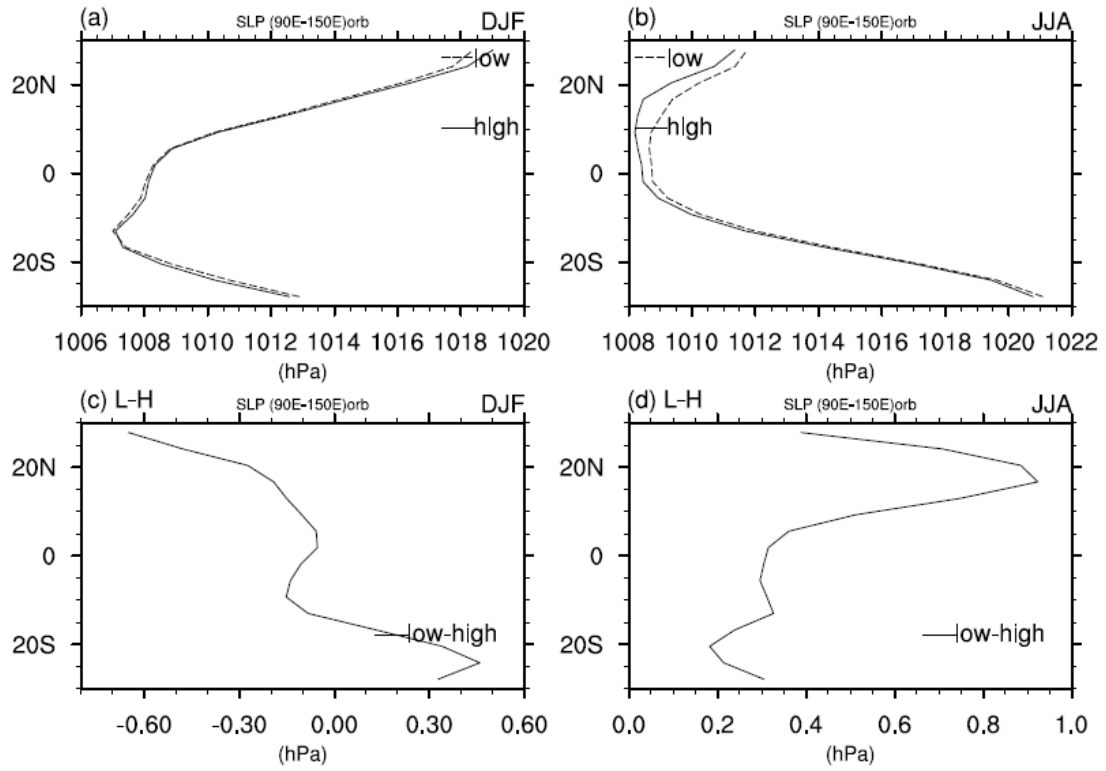
Figure S4 Composite maps of zonal mean sea level pressure (SLP) over (90E-150E) climatology at high (solid line) and low (dashed line) precession stages (a, b) and its anomalies (c, d) in DJF (a, c) and JJA (b, d). The composite anomalies are the differences between low and high precession states (L-H).
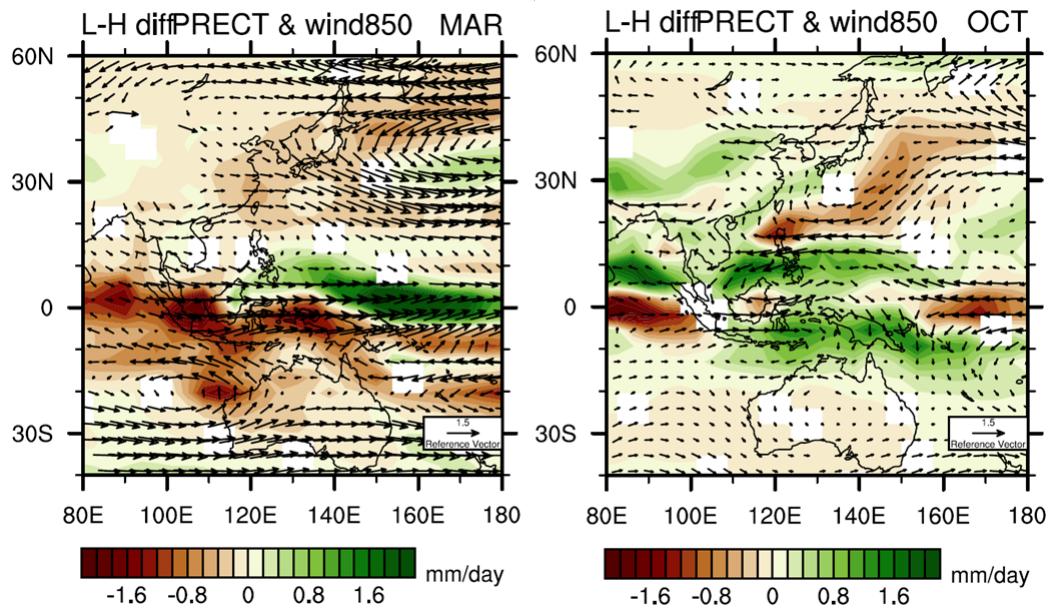
Figure S5 The composite maps of total precipitation rate (shading, PRECT) and horizontal wind at 850 hPa (vector, wind850) anomalies in March (MAR, a) and in October (OCT, b). The differences are obtained between the low and high precession states (P_low - P_high). Only those values above 95 % confidence level are shown.