Response of the link between ENSO and the East Asian winter monsoon to Asian anthropogenic aerosols

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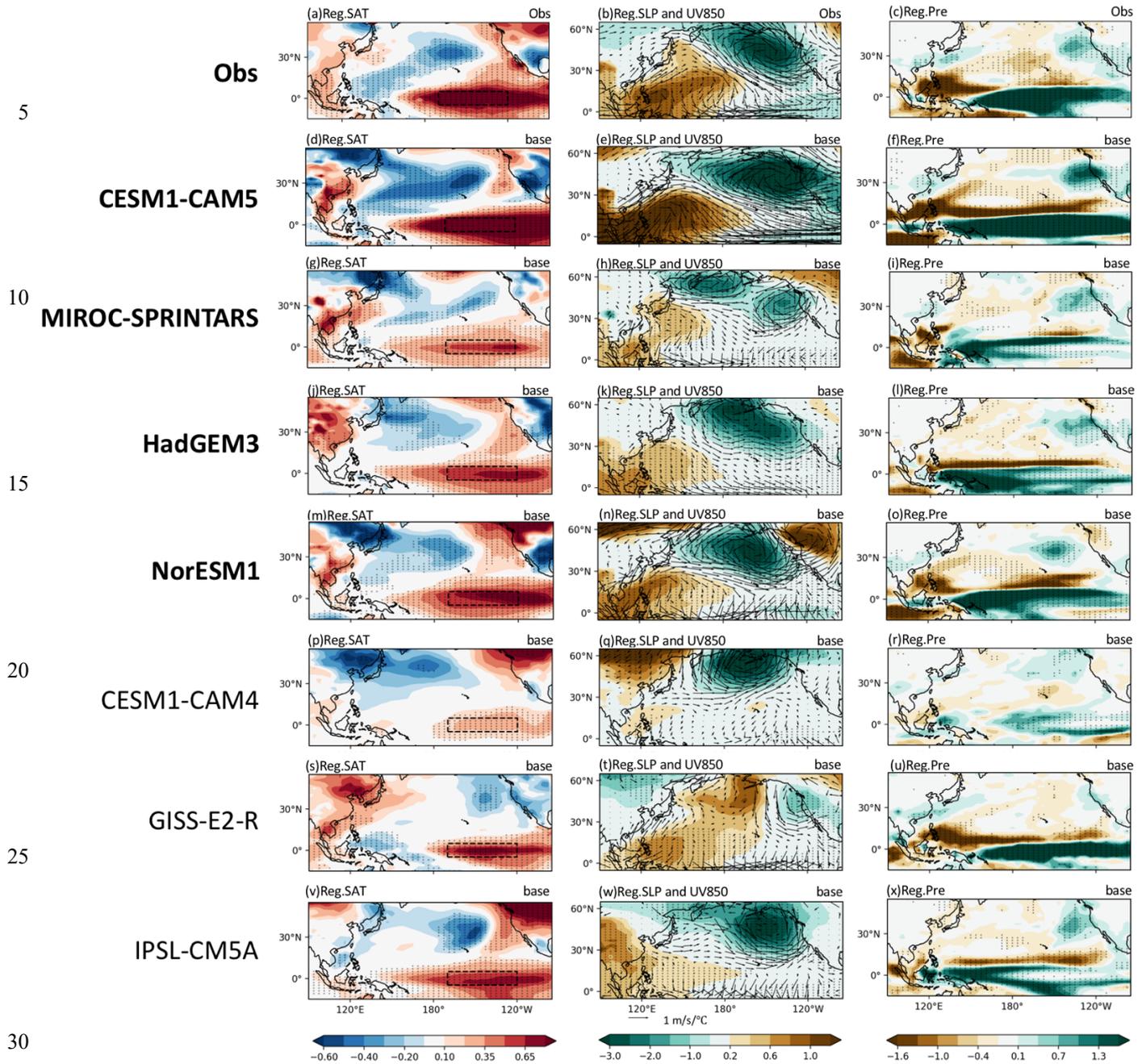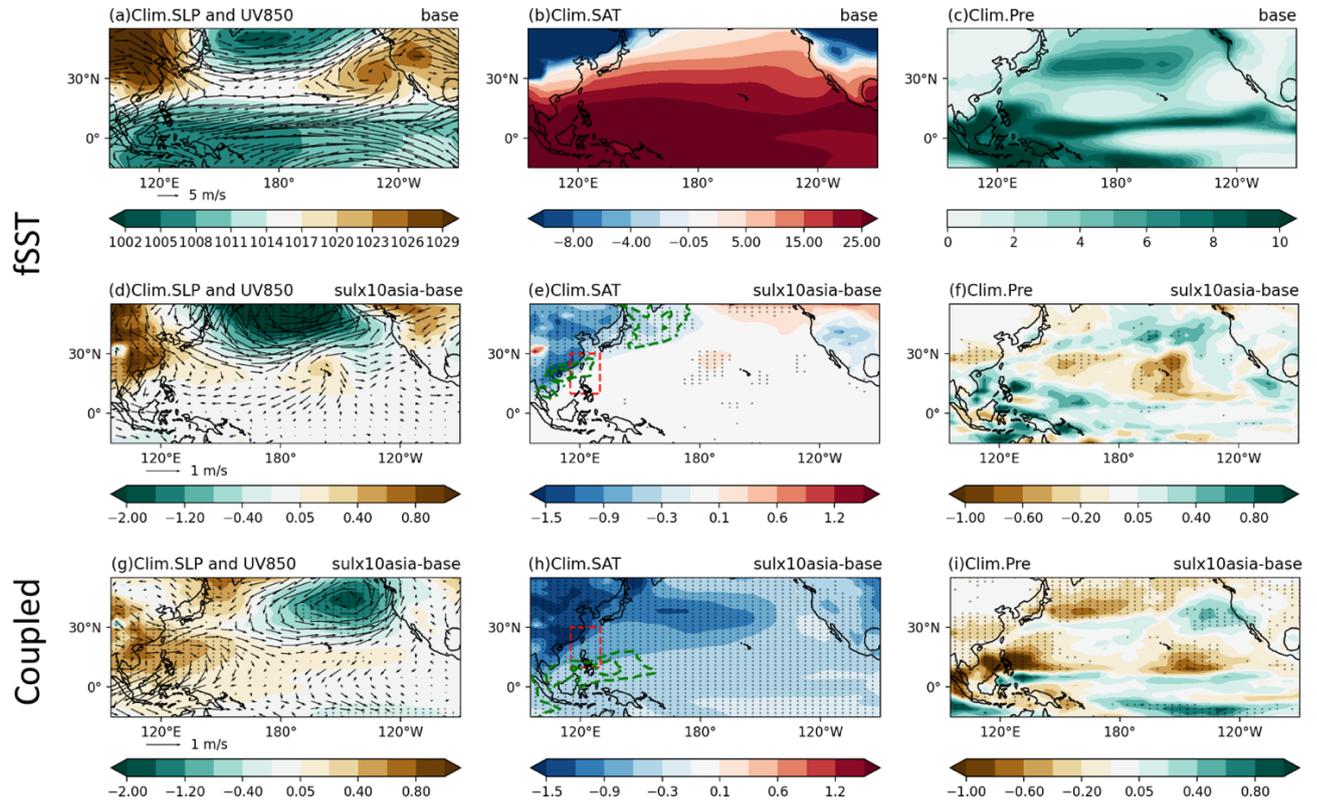
Supporting information

Figure S1. As in Figures 1a-c, and for (d-x) each model from the coupled baseline simulation in PDRMIP.

Figure S2. Top row: DJF multimodel mean of (a) sea level pressure (SLP; hPa, shading) and 850 hPa wind (UV850; m s^{-1}, vector), (b) surface air temperature (SAT, SST over the ocean, °C, shading), (c) precipitation (Pre, mm d^{-1}) from the PDRMIP fSST baseline simulations. Middle row: DJF multimodel mean changes of (d) SLP and UV850, (e) SAT and 1000 hPa meridional wind (V1000, m s^{-1}, green contours, values plotted only when smaller than -0.1 m s^{-1}), between the SUL×10Asia and baseline simulations in the PDRMIP fSST experiments. Bottom row: As middle panels, but for the PDRMIP coupled simulations. Dotted regions indicate significant changes at the 95% level from the two-tailed Student's t test. The definition region of the EAWM index is marked by a red rectangle in the middle column (panels e and h).
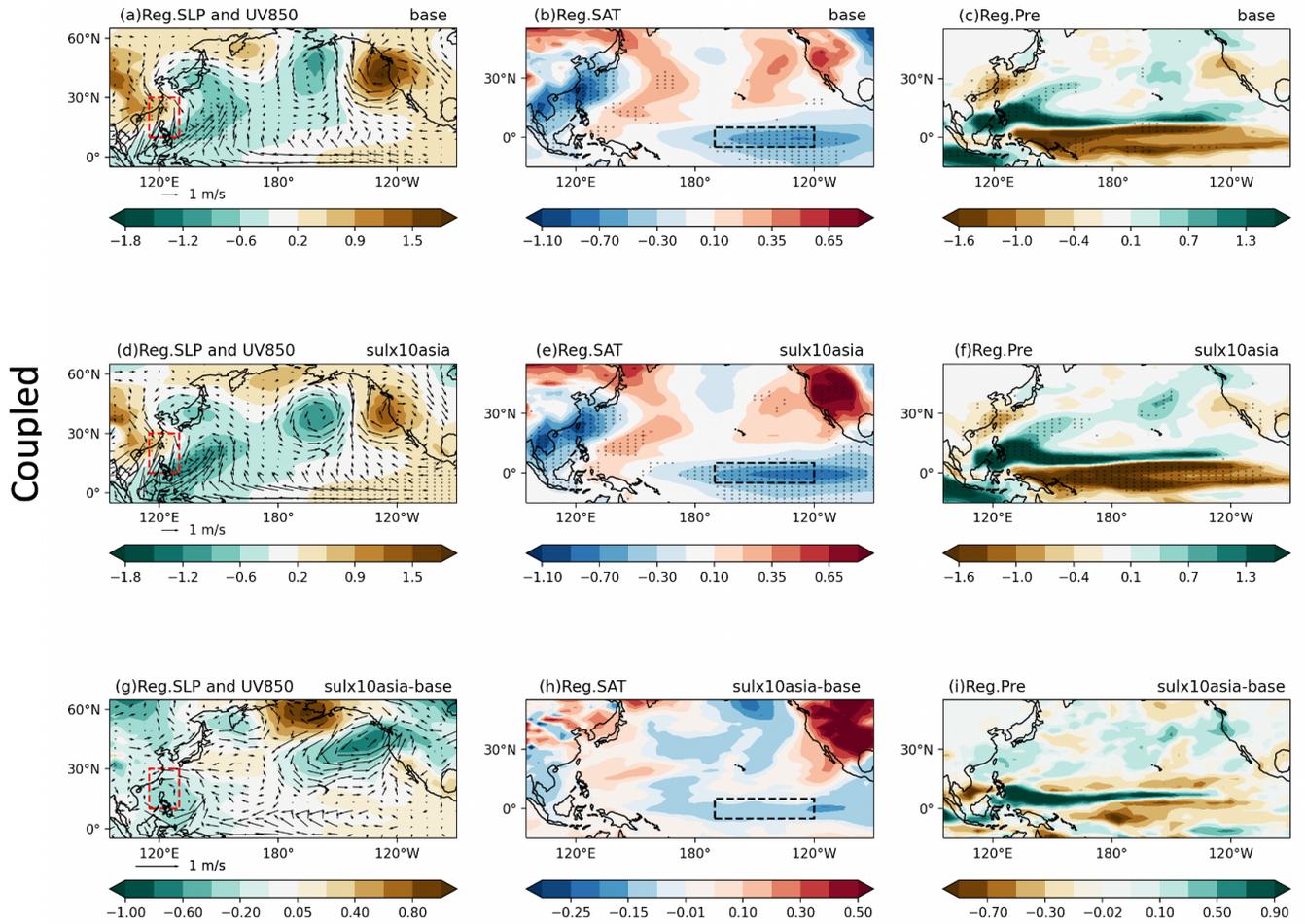
Figure S3. DJF multimodel mean regressions of (a)(d) SLP and UV850, (b)(e) SAT (SST over the ocean), (c)(f) Pre onto the EAWM index from coupled (a-c) baseline, (d-f) SUL×10Asia simulations in PDRMIP. Dotted regions indicate significant correlations at the 95% level from the two-tailed Student's *t* test. The definition region of the EAWM index is marked by red rectangle. Differences in regressions of (g)) SLP and UV850, (h) SAT (SST over the ocean), (i) Pre between coupled SUL×10Asia and baseline simulations.
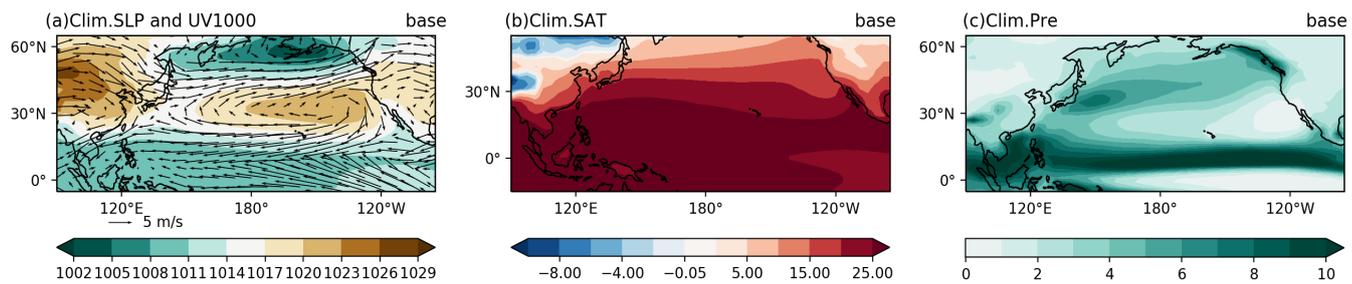
Figure S4. As in Figures 1a-c, but for SON.

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