

1 **Supplement**

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4 **Poleward shift of the North Pacific storm track driven by**
5 **springtime East Asian dust heating**

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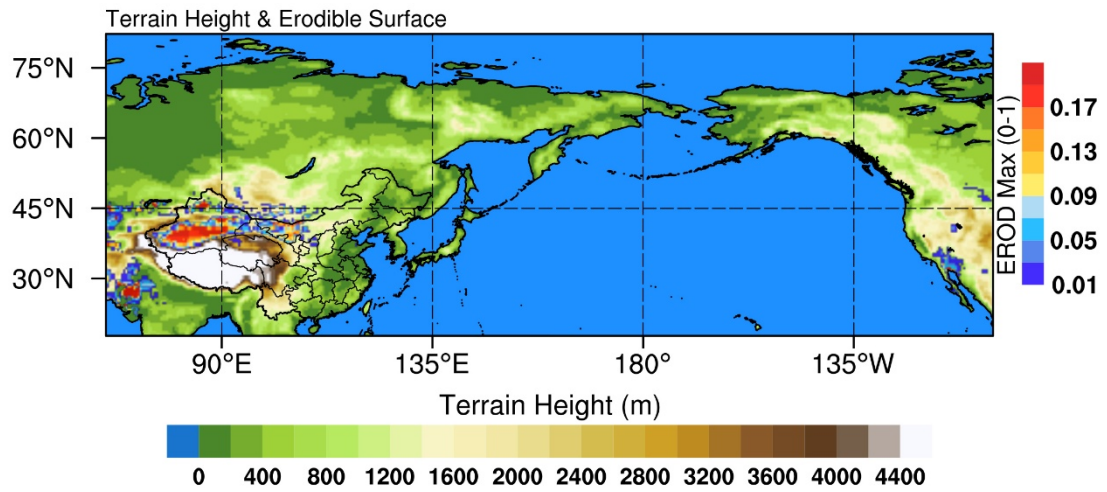
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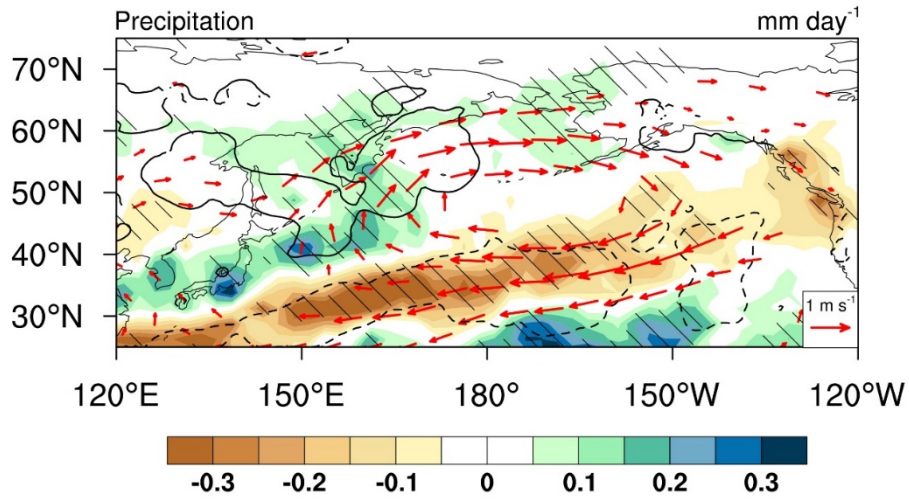
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19 **Figure S1. Model domain configuration showing terrain height (shading; m) and the fraction of erodible**
 20 **surface (EROD; dimensionless, 0–1) derived from the maximum across three soil types (sand, silt, and clay),**
 21 **which serves as the dust source function in the Shao (2004) dust emission scheme implemented in WRF-Chem.**

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24 **Figure S2. Regressions of anomalies in precipitation (shading; mm day⁻¹) and 850 hPa wind (vector; m s⁻¹)**

25 **onto the standardized EADI_IA. Hatching and red vectors indicate that the regressed anomalies of**

26 **precipitation and wind are statistically significant at the 95 % confidence level based on a Student's t test,**

27 **respectively. Black contours denote the statistically significant regions of the regressed $V'T'_{850}$ anomalies**

28 **shown in Figure 3b, with solid and dashed lines representing positive and negative values, respectively.**

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