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Supplement of

Sea salt aerosols from blowing snow: contributions to radiative forcing

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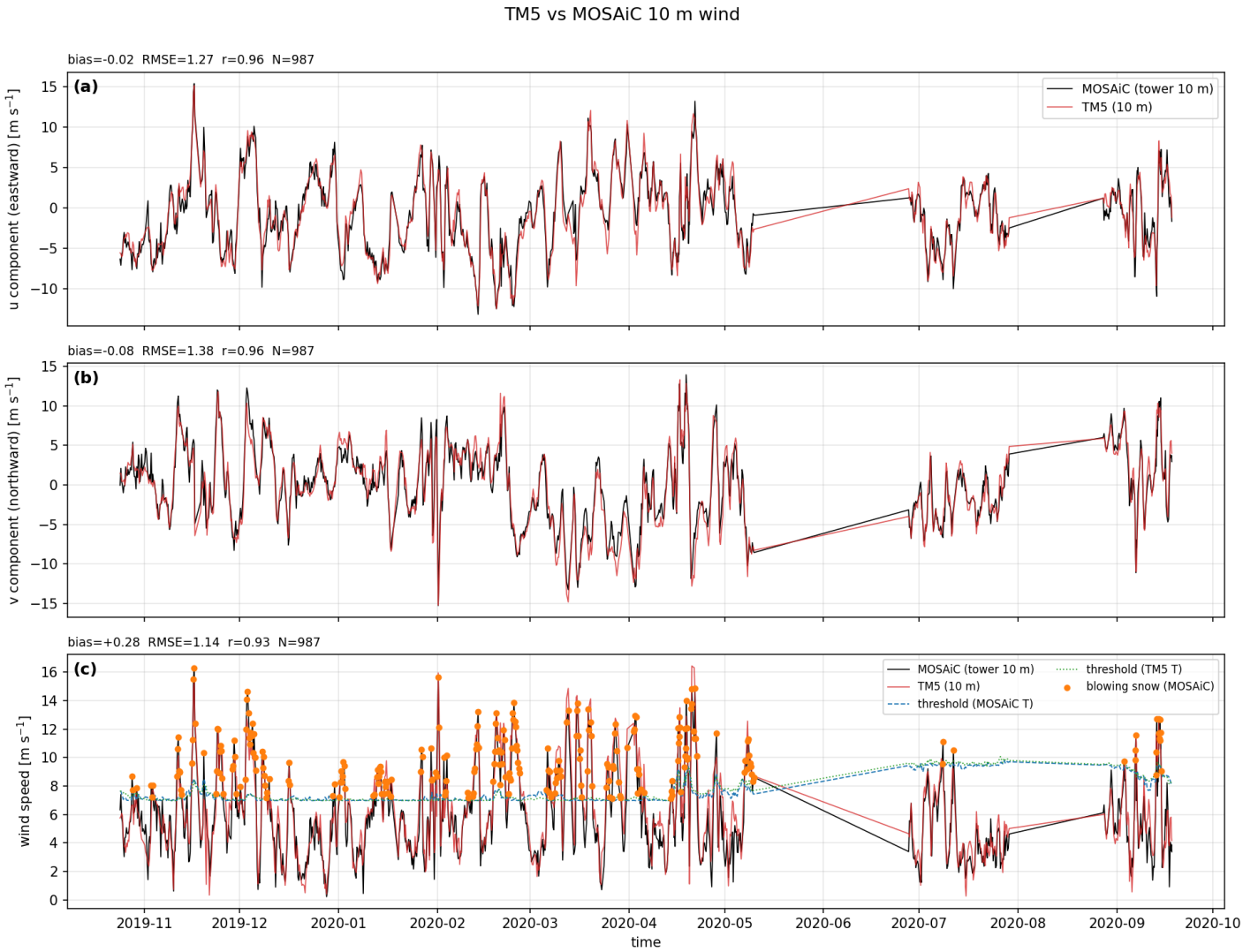


Figure S1: Comparison of 10 m wind from the TM5 meteorological input fields (red) against MOSAiC observations (black) along the MOSAiC track, October 2019–September 2020 (each MOSAiC record matched to the nearest TM5 grid cell and hour). (a) Zonal wind component u (eastward), (b) meridional wind component v (northward), and (c) total wind speed. In panel (c), the dashed blue and dotted green lines show the critical wind speed for blowing-snow onset, computed from the MOSAiC and TM5 2 m air temperature, respectively, using the temperature-dependent formulation of Li and Pomeroy (1997): $U_t = U_{t0} + 0.0033(T_a + 27.27)^2$, where U_{t0} wind speed and T_a is air temperature in °C. Orange markers indicate observations exceeding the threshold (blowing-snow conditions). Bias, root-mean-square error (RMSE), and Pearson correlation (r) of TM5 relative to MOSAiC are given above each panel.

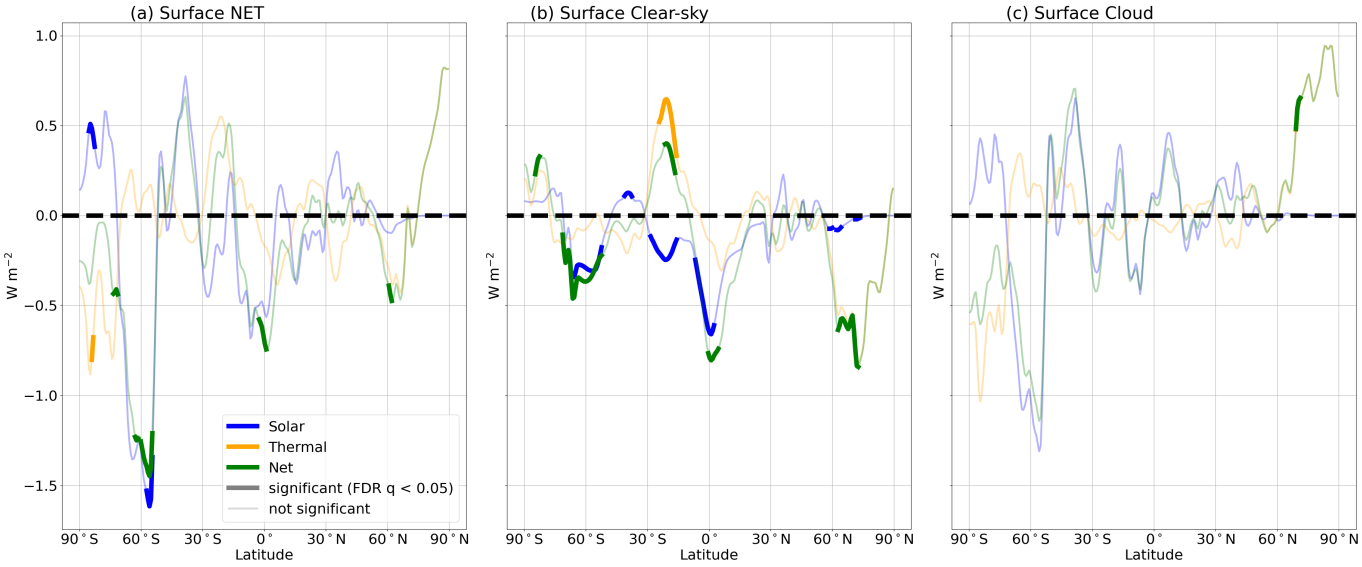


Figure S2: Same as Fig. 8 but for DJF.

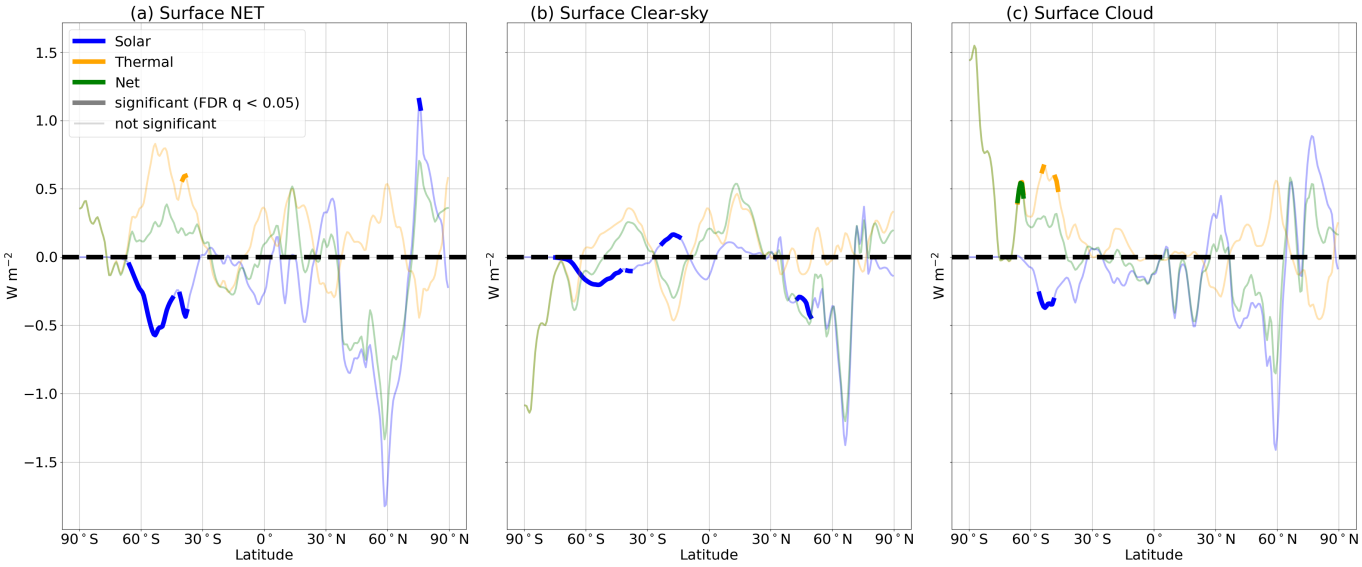


Figure S3: Same as Fig. 8 but for JJA.

References

[1] Li, L. and Pomeroy, J. W.: Estimates of threshold wind speeds for snow transport using meteorological data, *Journal of Applied Meteorology*, 36, 205–213, https://doi.org/10.1175/1520-0450(1997)036<0205:EOTWSF>2.0.CO;2, 1997.