



Supplement of

Influence of weather situation on non-CO $_2$ aviation climate effects: the REACT4C climate change functions

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Fig. S1: Contrail-cirrus climate change functions for weather situation W1 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10⁻¹⁵ K/km].



Fig. S2: Contrail-cirrus climate change functions for weather situation W2 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10-15K/km].



Fig. S3: Contrail-cirrus climate change functions for weather situation W3 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10⁻¹⁵K/km].



Fig. S4: Contrail-cirrus climate change functions for weather situation W4 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10⁻¹⁵K/km].



Fig. S5: Contrail-cirrus climate change functions for weather situation W5 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10-15K/km].



Fig. S6: Contrail-cirrus climate change functions for weather situation S1 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10-15 K/km].



Fig. S7: Contrail-cirrus climate change functions for weather situation S2 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10⁻¹⁵ K/km].



Fig. S8: Contrail-cirrus climate change functions for weather situation S3 for the pressure levels 200, 250, 300 and 400 hPa and the emission times 6, 12, and 18 UTC [10⁻¹⁵ K/km].



Fig. S9: Total NO_x climate change functions for weather situation W1 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S10: Total NO_x climate change functions for weather situation W2 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S11: Total NO_x climate change functions for weather situation W3 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S12: Total NO_x climate change functions for weather situation W4 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S13: Total NO_x climate change functions for weather situation W5 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S14: Total NO_x climate change functions for weather situation S1 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S15: Total NO_x climate change functions for weather situation S2 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S16: Total NO_x climate change functions for weather situation S3 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁴ K/kg(NO₂)].



Fig. S17: H₂O climate change functions for weather situation W1 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S18: H₂O climate change functions for weather situation W2 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S19: H₂O climate change functions for weather situation W3 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S20: H₂O climate change functions for weather situation W4 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S21: H₂O climate change functions for weather situation W5 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S22: H₂O climate change functions for weather situation S1 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10⁻¹⁷ K/kg(fuel)].



Fig. S23: H₂O climate change functions for weather situation S2 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10^{-17} K/kg(fuel)].



Fig. S24: H₂O climate change functions for weather situation S3 for the pressure levels 200, 250, 300 and 400 hPa and 12 UTC [10^{-17} K/kg(fuel)].