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Supplement of

The long-term transport and radiative impacts of the 2017 British Columbia pyrocumulonimbus smoke aerosols in the stratosphere

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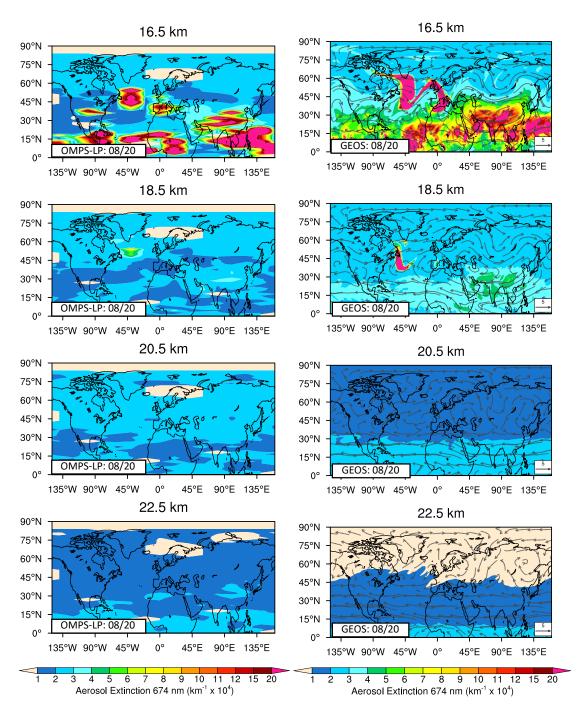


Figure S1a. OMPS-LP retrieved (left column) and GEOS simulated (right column) total aerosol extinctions (km⁻¹ x 10⁴) at 674 nm at altitudes from 16 to 22 km (top to bottom) one week from the day of injection. The simulated wind vectors are overlaid on the model contour plots to depict the trajectory of transport at different altitudes and identification of the anticyclonic flow of Asian Summer Monsoon.

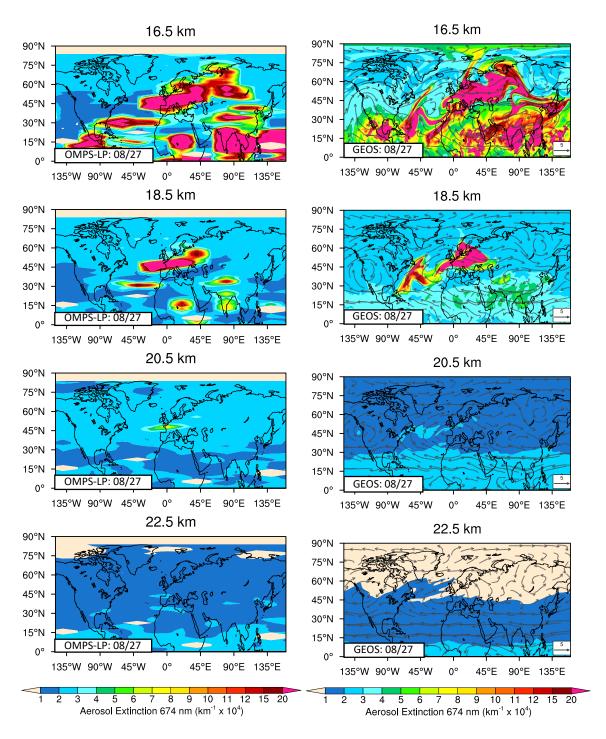


Figure S1b. Same as Figure S1a, but two weeks after the pyroCb injection.

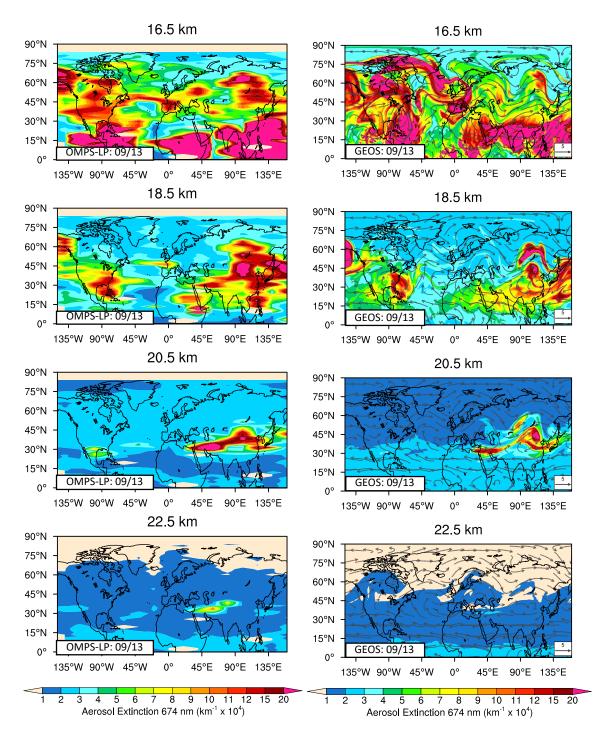


Figure S1c. Same as Figure S1a, but one month after the PyroCb injection.

TOA RF due to pyroCb (clear-sky) September 2017

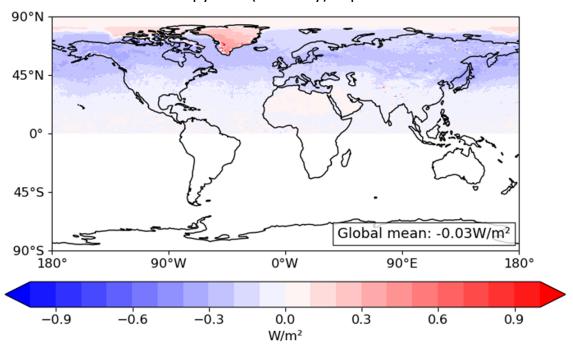


Figure S2: Monthly average of SW top of the atmosphere (TOA) radiative forcing perturbation due to pyroCb (clear-sky) for September 2017.

TOA RF due to pyroCb (clear-sky) September 1-5, 2017

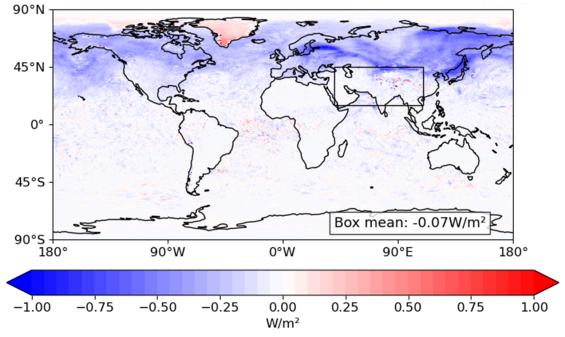


Figure S3: SW top of the atmosphere (TOA) radiative forcing perturbation due to pyroCb (clear-sky) for September 1-5, 2017.

Surface RF due to pyroCb (clear-sky) September 1-5, 2017

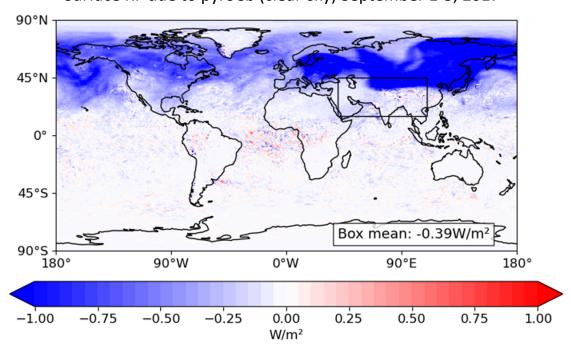


Figure S4: SW surface radiative forcing perturbation due to pyroCb (clear-sky) for September 1-5, 2017