



Stratospheric water inferred from Lagrangian Cold Point characteristics

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Total water was recently measured onboard the Geophysica high-altitude aircraft using the Jülich fluorescence hygrometer FISH during the three tropical campaigns TroCCiNO_x (January-February 2005), SCOUT-O3 (November-December 2005) and AMMA (August 2006) over Southern Brazil, Northern Australia and West Africa. Trajectories are initialized at the flight locations, calculated backwards for ten days and the Lagrangian Cold Point (LCP) characteristics determined along the paths. To test whether stratospheric water values can be deduced from the temperature history of air, minimum saturation water vapor is derived from the LCP-temperature and compared to the measurements.