

## The simulation of the transport of aircraft emissions by a three-dimensional global model

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**Abstract.** A three-dimensional off-line tracer transport model coupled to the ECMWF analyses has been used to study the transport of trace gases in the atmosphere. The model gives a reasonable description of their general transport in the atmosphere. The simulation of the transport of aircraft emissions (as NO<sub>x</sub>) has been studied as well as the transport of passive tracers injected at different altitudes in the North Atlantic flight corridor. A large zonal variation in the NO<sub>x</sub> concentrations as well as large seasonal and yearly variations was found. The altitude of the flight corridor influences the amount of tracers transported into the troposphere and stratosphere to a great extent.

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