



Interannual variability and trends in ozone measured by MOZAIC/IAGOS aircraft

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The MOZAIC project began in 1994 and provides measurements of tropospheric ozone from instruments mounted on long-range commercial aircraft. The quasi-global nature of the coverage and homogeneous measurements make the MOZAIC dataset one of the most reliable and most suitable for the study of the past and future budgets of ozone and long-term trends. The IAGOS project which started on 11 July 2011 takes MOZAIC into the future and will ensure the continuity and expansion of this valuable dataset. The early part of the MOZAIC time-series showed increasing ozone concentrations over North America, Western Europe and Asia. This coherence has since diverged with ozone concentrations stabilizing over North America and Europe, whilst continuing to increase over Asia. We discuss the current evidence for trends in MOZAIC/IAGOS ozone based on time-series of tropospheric ozone over the past 18 years at numerous airports around the globe, and updated trends of ozone in the UTLS from measurements taken at cruise altitude. We compare the latter part of the time-series with ozone from the MACC (Monitoring Atmospheric Composition and Climate) reanalysis, which is the longest reanalysis of atmospheric composition and spans the years 2003-2011, and we assess the ability of the MACC models to reproduce the observed variability.