



The 50-year stratospheric ozone evolution: 3D chemical-transport modelling

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The past 50 year chemical evolution of stratospheric ozone has been simulated using the REPROBUS chemical-transport model driven by the ECMWF/ERA40 data. Halocarbons and greenhouse gases (GHG) used in WMO 2-D model calculations are imposed at lower levels. We will present the trends of stratospheric ozone obtained over the integration period and will compare them to long-term measurements. Dynamical and chemical parameters related to the evolution of middle-latitude ozone and its trends analysis based on model results will be discussed. Sensitivity studies on the forcing interval (3H/6H) and the horizontal resolution ($6^\circ \times 6^\circ$ or $2^\circ \times 2^\circ$) of the model will also be presented. This study is supported by the CANDIDOZ project of the European Commission (Chemical and Dynamical Influences on Decadal Ozone Change).