



A COMPARISON OF MULTIANNUAL CTM CALCULATIONS USING OPERATIONAL AND ERA-40 ECMWF ANALYSES

R. Ruhnke, C. Weiss, T. Reddmann, and W. Kouker

Institut für Meteorologie und Klimaforschung, Forschungszentrum Karlsruhe, Germany
(roland.ruhnke@imk.fzk.de)

Chemistry-Transport-Models (CTMs) using meteorological analyses of the wind and temperature fields are a useful tool for the simulation and interpretation of atmospheric processes. The quality of the calculations with respect to transport or temperature dependent processes as for example denitrification in the polar winter stratosphere depends on the quality of the meteorological analyses used. In this study we use the Karlsruhe Simulation model of the Middle Atmosphere (KASIMA) to investigate the influence of different meteorological analyses (operational and ERA-40 ECMWF) on the calculated tracer distributions, chlorine activation and ozone loss for the years 1999 and 2000. In addition, the model results are compared to HALOE measurements.