



## **Studies of seasonal cycles and sensitivity to dynamic and emissions of tropospheric ozone and precursors in the period 1997-2000**

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A major part of the EU funded project RETRO was to develop and apply tools for analysing and evaluating global chemistry models on seasonal timescales. Five models were run using meteorological analyses from the ERA-40 project with new data on emissions produced within RETRO. The work to be presented concentrates on the 1997-2000 period where there are a large number of datasets available for evaluating the model results. The tools used for the evaluation as well as model results are described here. In addition sensitivity studies have been performed to improve the understanding of this period in terms of the relative importance of dynamical and chemical variability. These sensitivity studies use observation including ozone sondes, surface data and satellite data to examine how well the model reproduces the observed variability.