



SENSITIVITY OF DYNAMICS AND OZONE TO DIFFERENT REPRESENTATIONS OF SSTs IN THE UNIFIED MODEL

P. Braesicke (1) and J.A. Pyle (1)

(1) Centre for Atmospheric Science, Chemistry Department, University of Cambridge, UK
(peter.braesicke@atm.ch.cam.ac.uk)

We use a version of the Met Office Unified Model with a simple stratospheric chemistry to perform a set of multi-annual integrations of 20 years each. The runs have different representations of ozone in the radiation and are using monthly mean SSTs. In one experiment recurring long-term monthly mean SSTs are applied instead. All runs have the simplified ozone chemistry included (regardless of what ozone is used in the radiation) therefore we can estimate the impact of dynamical changes on ozone. We will contrast the sensitivity of the model system towards the representation of ozone with the changes associated with the alteration of the SSTs. We will show, that the appearance of extreme events in the stratosphere as modelled with the Unified Model is linked more to the representation of SSTs than it is to ozone.