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Some issues in comparing data from EOSMLS with output from the SLIMCAT Model

R. S. Harwood (1), I. A. MacKenzie (1), G.L. Manney (2,3), and N.J. Livesey (2)

(1) University of Edinburgh, School of GeoSciences, Edinburgh, United Kingdom (r.harwood@ed.ac.uk, +44 131-447 6569), (2) Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA USA, (3) New Mexico Institute of Mining and Technology, Socorro, NM USA

The Earth Observing Microwave Limb Sounder on the Aura Satellite has been providing three-dimensional distributions of key stratospheric chemical species since its launch in July 2004. An uninterrupted run of the SLIMCAT chemical transport model has simulated the atmospheric evolution over that time and has been sampled at the EOSMLS measurement locations and times.

The simulation and observations will be compared as a basis for discussing issues such as the required accuracy of measurements to constrain chemical inferences, the difficulty of fully taking into account the retrieval procedure, the influence of misrepresentation of the transport processes, the influence of choices for initialisation procedures and for specification of unmodelled species, together with possible implications of dynamical chaos.