Dear chemistry-climate modelers, **February 19, 2005**

As announced earlier (email 20/12/04, Subject: CCMVal kick-off intercomparison), Neal Butchart and I have started a comprehensive CCM intercomparison within the European Integrated Project SCOUT-O3 and would like to extend the intercomparison for all CCMs worldwide.

The first data request (see list below and also website) has already been sent out to the SCOUT-O3 groups and we have started to collect and compare the data.

We will only compare transient model simulations, time period 1980 to 1999 (no time slice experiments). We are planning to extend the time period at a later stage.
For stage one of the comparisons we would like to concentrate on the following comparisons:

1. Detailed comparisons of modeled ozone, water vapor, CH_4, HCl, N_2O, HNO_3, $ClONO_2$, zonal mean wind and temperature distributions. This includes certain diagnostics on single levels, correlations, but also a comparison of climatologies (e.g. to UARS climatologies, see http://www.sparc.sunysb.edu/html/uars_index.html) and an analysis of the QBO and SAO. We will ask for some of the short-lived species (e.g. ClO) in a later data request. For the next data request we hope to ask for model output expressed in equivalent latitude and will discuss how best to do this during the SCOUT-O3 Project meeting in early March.

2. A comparison of monthly mean tropopause heights to reanalyses data (see e.g. http://www.sparc.sunysb.edu/html/tropopause_index.html).

3. Austin et al update (heatflux-temperature correlation, residual meridional circulation, Minimum total ozone, Maximum ozone hole area etc.)

We are planning to have the results ready for the CCMVal Boulder workshop. Therefore, we would appreciate if you can send data as soon as possible. Please send an email to both of us (neal.butchart@metoffice.gov.uk and Veronika.Eyring@dlr.de) once you put the data on the ftp site. Details of the ftp site will be provided soon.

IMPORTANT: While extracting the data, please follow the data format specified in the Interface Control Document (ICD) at
http://www.pa.op.dlr.de/SCOUTO3/InterfaceControlDocument.html

According to the CCMVal table not all CCM groups have a transient model run available, but have plans to carry out one soon. For those groups it should be possible to join in late. If you are interested, please keep us informed on progress.

Thank you for your cooperation and we hope to see many of you at the CCMVal 2005 workshop in Boulder.

Best regards,
Neal and Veronika
P.S. CCMVal is currently putting together a web site containing possible forcings that people might wish to use for CCM experiments. We will open the discussion on the first draft next week.

Attached: First CCMVal data request

February 19, 2005

First CCMVal data request

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2D-Monthly zonal mean fields for the full period (Jan 1980 - Dec 1999)

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Basic fields:

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(A) Zonal mean latitude-height on standard pressure levels (defined on web site http://www.pa.op.dlr.de/SCOUTO3/InterfaceControlDocument.html **) from the chemical core of your model.**

Each species in a single file

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A.1. Monthly mean H_2O (NAME: ZONMEANchemH2O_lath_MODELNAME)
A.2. Monthly mean O_3 (NAME: ZONMEANchemO3_lath_MODELNAME)
A.3. Monthly mean temperature (NAME: ZONMEANchemT_lath_MODELNAME)
A.4. Monthly mean CH_4 (NAME: ZONMEANchemCH4_lath_MODELNAME)
A.5. Monthly mean N_2O (NAME: ZONMEANchemN2O_lath_MODELNAME)
A.6. Monthly mean HNO3 (NAME:ZONMEANchemHNO3_lath_MODELNAME)
A.7. Monthly mean HCl (NAME: ZONMEANchemHCl_lath_MODELNAME)
A.8. Monthly mean ClONO2 (NAME:ZONMEANchemClONO2_lath_MODELNAME)
A.9. Monthly mean ClO (NAME:ZONMEANchemClO_lath_MODELNAME)

(B)) Zonal mean latitude-height on standard pressure levels (defined on web site http://www.pa.op.dlr.de/SCOUTO3/InterfaceControlDocument.html **) from the dynamical core of your model.**

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B.1. Monthly mean Temperature
B.2. Monthly mean u (zonal wind)
B.3. Monthly mean specific humidity

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(C) Single level (lat-longitude)

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(C.1) Monthly mean Total Column Ozone fields
(NAME: MeanTOZ_latlon_MODELNAME)

(C.2) Monthly mean Temperature 50 hPa
(NAME: MEANT50_latlon_MODELNAME)

(C.3) Monthly mean Temperature 100 hPa
(NAME: MEANT100_latlon_MODELNAME)

(C.4a) Monthly mean pressure at 380 K
(NAME: MEANP380_latlon_MODELNAME)

(C.4b) Monthly mean pressure at 400 K
(NAME: MEANP400_latlon_MODELNAME)

(C.4c) Monthly mean pressure at 500 K

(NAME: MEANP500_latlon_MODELNAME)

(C.4d) Monthly mean pressure at 600 K

(NAME: MEANP600_latlon_MODELNAME)

(C.5) Monthly zonally averaged mean tropopause heights in millibars (based on WMO definition)

(NAME: ZONMEANTPP_lat_MODELNAME)

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D. Daily Fields for the full period (Jan 1980 - Dec 1999)

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(D.1) Temperature at 90 and 60 degrees N at 10 and 30 hPa
(D.2) Temperature at 90 and 60 degrees S at 10 and 30 hPa
(D.3) Zonal mean wind at 60N at 10 and 30 hPa
(D.4) Zonal mean wind at 60S at 10 and 30 hPa

Put data in single dataset (NAME: Dailytu_MODELNAME)

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E. Global mean temperature on standard pressure levels (defined on web site `http://www.pa.op.dlr.de/SCOUTO3/InterfaceControlDocument.html` **)**

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(E.1) Annual, global mean temperature on standard pressure levels (see ICD) (1980 to 1999)

(NAME: GlobMeanT_h_MODELNAME)

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(F) Derived Diagnostics from daily data

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(F.1) Zonally averaged heat flux at 100 hPa as monthly means derived from daily fields (January through December)

(NAME: ZONMEANheatf100_lat_MODELNAME)

(F.2) Monthly mean latitude/height residual meridional circulation (v*/w*)

(NAME: ZONMEANresvw_lath_MODELNAME)

(F.3) Minimum total ozone throughout the latitude 60 to 90°N; March – April, Minimum total ozone throughout the latitude 60 to 90°S; Sept – Nov, Maximum ozone hole area during the period September to November as given by the 220 DU contour for the southern hemisphere

NAME: MinMaxTOZ_lath_${MODEL}