Open Submission – Workshop Summary

Air Quality Model Evaluation International Initiative (AQMEII) – May 8, 2012, Utrecht, The Netherlands

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The 4th workshop of the Air Quality Model Evaluation International Initiative (AQMEII) was held on May 8 in Utrecht, The Netherlands, in conjunction with the NATO/SPS International Technical Meeting on Air Pollution Modeling and Its Application. AQMEII was launched in 2009 as a long-term forum to monitor and improve the state-of-the-science in regional-scale air-quality models and model evaluation methodologies (Rao et al., 2011). AQMEII functions through the organization of periodic conference calls, workshops, and coordination of joint modeling activities to facilitate model evaluation and model inter-comparisons. In its first phase, AQMEII organized annual model simulations for 2006 over both Europe and North America using specified input datasets and used the outputs from these simulations to conduct a number of model evaluation analyses. A total of 22 modeling groups from 13 countries participated in the Phase 1 activity.

The May 8th workshop, which was attended by roughly 30 scientists from Europe and North America, opened with several presentations summarizing the AQMEII Phase 1 results and providing an overview of ongoing AQMEII Phase 1 analyses. Fifteen papers resulting from the Phase 1 activity were published in the AQMEII special issue of Atmospheric Environment in June 2012. Workshop participants were also reminded that there is an open invitation to the scientific community to utilize the large 4-D database of observations and model outputs generated during AQMEII Phase 1 for developing innovative model evaluation techniques and for improving the science in regional-scale air quality models (Galmarini and Rao, 2011).

The workshop then turned towards presentations and discussions of Phase 2 of AQMEII which is targeted towards European and North American modeling groups that use on-line or coupled meteorology-air quality models and that wish to evaluate and inter-compare their model results based on a common modeling platform (see Alapaty et al., 2012). The goal of this activity is to assess how well the current generation of coupled regional-scale air quality models can simulate the observed spatio-temporal variability in the optical and radiative characteristics of atmospheric aerosols and associated feedbacks among aerosols, radiation, clouds, and precipitation. Following these presentations and discussions, the workshop participants agreed upon the following timeline for the AQMEII Phase 2 activity:

- Summer/Fall 2012: Emissions and chemical boundary conditions will be provided to participating modeling groups
- Fall/Winter 2012/2013: Participating groups perform air quality model simulations
- Winter/Spring 2012/2013: Participating groups begin data delivery to the Joint Research Centre ENSEMBLE system
- Spring/Summer 2013: Collective data analysis of model results at the Joint Research Centre and by modeling groups
- August 25, 2013: 5th AQMEII workshop in conjunction with the 33rd NATO/SPS International Technical Meeting on Air Pollution Modeling and Its Application in Miami to review Phase 2 results and identify potential publications in the peer-reviewed literature

Further information on this activity can be found on the AQMEII website at http://aqmeii.jrc.ec.europa.eu/

References:

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