August 2006
Volume 3, Issue 3

CMAS Quarterly

The Quarterly Newsletter of the Community Modeling and Analysis System

Annual CMAS Conference Approaching

Preparations for the CMAS conference in Chapel Hill, NC (October 16-18, 2006) are well underway. It's shaping up to be a very exciting meeting with a diverse array of topics. CMAS received more than 110 papers for presentations in oral and poster sessions. Session chairs have finished reviewing the papers, and authors have been notified concerning the acceptance of their presentations. An important date for everyone to keep in mind is ***September 14, 2006.*** This is the last day for the less expensive "early bird" registration, and is also the deadline for presenters to submit their extended abstracts. To register for the conference, visit http://www.cmascenter.org/conference.cfm.

We have three distinguished guest speakers this year:

- *Dr. George M. Gray,* Assistant Administrator for Research and Development, U.S. EPA;
- *Mr. Timothy R.E. Keeney*, Deputy Assistant Secretary for Oceans and Atmosphere, NOAA; and
- *Dr. Gary Foley,* Director, National Center for Environmental Research, U.S. EPA.

They have graciously offered to share with conference participants their perspectives on future directions in air quality modeling.

New Research at CMAS

CMAS scientists, led by Director Adel Hanna, are working with EPA scientists Jason Ching and David Miller on development of the National Urban Database Access Portal Tools (NUDAPT) for advanced urban dispersion and air quality modeling. The goal of the NUDAPT project is to improve meteorological modeling for urban applications by taking advantage of advances in modeling and parameterizations that are being developed for improving urban simulations, as well as the availability of new high-resolution data of urban morphological features.

The project involves various models, databases, and users. A NUDAPT portal web site will be established for handling and retrieving data and for linking data and models. Implementation based on portal technology will be used to facilitate public use of this database, and for permitting modeling and user-based community involvement based on data federation concepts (which provide a method for integrating diverse data into an application).

On May 11-12, 2006, a planning workshop on urban database development and support was held in Boulder, CO. It addressed future directions in air quality science and development, and was hosted by Dr. Fei Chen of the University Corporation for Atmospheric Research (UCAR). This year's CMAS conference will include a session along similar lines.

Did You Know?

Share Your Research and Development Work

Please share your CMAS-related research or model development work with the CMAS community by visiting the CMAS Research and Development web page at http://www.cmascenter.org/rnd.cfm. Your submissions will be posted under "Ongoing Research and Development."

SMOKE Has a New Home

All the information you need to know about SMOKE, from documentation and data to SMOKE utilities and updates, can now be found online at http://www.smoke-model.org/.

And Coming Soon... cmaq-model.org!

Upcoming Training Events for 2006-07

(All are at UNC unless otherwise indicated)

SMOKE Training:

- July 17-19, 2006
- October 11-13, 2006
- January 22-24, 2007
- April 23-25, 2007

CMAQ Training:

- July 20-21, 2006
- October 19-20, 2006
- January 25-26, 2007
- April 26-27, 2007

Can't come to us for training? Have the same courses taught on-site at your location by the same experienced trainers. For more information, please visit http://www.cmascenter.org/training/classes.cfm or e-mail cmas@unc.edu.

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Please come visit us on the Web!

www.cmascenter.org

A Letter from the Director of CMAS

This is the fifth year the CMAS Center has been hosted at the University of North Carolina at Chapel Hill and operationally funded by the U.S. Environmental Protection Agency. The CMAS community continues to grow year after year. Our mailing list has vastly expanded, as have the number and variety of our participating organizations. This year, for example, we welcomed environmental and emissions scientists from the Federal Aviation Administration to the CMAS community.

Another aspect of CMAS that continues to grow is our training program. In addition to the CMAQ and SMOKE training held at UNC and at other U.S. locations, we are now conducting training internationally. In July we held a session in Mexico City that was attended by 15 scientists. In August we conducted one in Sofia, Bulgaria; more than 30 scientists from European countries attended training on SMOKE, WRF, and CMAQ.

The special issue of *Atmospheric Environment (AE)* that was organized by the CMAS Center has now been published. It includes 25 papers that discuss aspects of air quality modeling evaluation. This *AE* volume is based on the 2004 annual conference session that addressed model evaluation. The next journal special issue will be based on papers presented under the model development session of the 2005 conference. They are currently under review by the *Journal of Applied Meteorology (JAM)*. Although there won't be a journal special issue resulting from the 2006 conference, we intend to coordinate one for the 2007 conference. For that conference, watch for sessions on topics such as modeling of hazardous air pollutants (HAPs) and urban-scale modeling using CMAQ.

At the end of this year, EPA and CMAS will coordinate a new CMAQ model peer review session, the third such session in the past five years. Each peer review session has a specific scientific focus. Leading scientists in the field of air quality participate in the review procedure, which includes presentations by CMAQ developers. The reviewers then prepare a report on their findings and recommendations. The final report is posted on the CMAS web site.

For CMAS, a promising future follows the distinguished achievements of the past. For example, CMAS will address developments in the Weather Research and Forecasting (WRF) model, which represents the future for meteorological and air quality modeling. We will also organize advanced training sessions on specific topics; for instance, training on analysis tools for air quality data, which will be designed for users who have completed the CMAQ and SMOKE trainings.

Over the past five years, CMAS has repeatedly proven its value to the community at large. With the help of the CMAS External Advisory Committee (EAC) and all of the community members served by CMAS, we will continue to advance the science and application of air quality modeling.

I look forward to seeing you all at the CMAS conference in October.

– Adel Hanna

CMAS Awards: Recognizing Contributions from the Community

In 2003, CMAS began formally acknowledging contributions of community members who are actively involved in CMAS. During each annual conference, we recognize several people who have contributed significantly to the CMAS mission through development, outreach, and collaboration. As a community-based platform, CMAS relies significantly on active contributions from the community.

The tradition will continue in 2006. Awardees recognized during the past three CMAS conferences are listed below.

– 2005 –

- Dr. Tanya Otte (U.S. EPA): MCIP development
- Dr. Krish Vijayaraghavan (AER): CMAQ-MADRID development

– 2004 –

- Dr. Daniel Cohan (Georgia Tech): CMAQ-DDM development
- Dr. Weimin Jiang (National Research Council, Canada): analysis of CMAQ model results
- Dr. Douw G. Steyn (The University of British Columbia): coordinating the 2003 CMAQ review

– 2003 –

- Dr. Elizabeth Bailey (TVA): valuable assistance to CMAS users
- Dr. Eric Giroux (National Research Council, Canada): valuable assistance to CMAS users
- Dr. Christian Hogrefe (University of Albany): analysis of CMAQ model results

Note that although these awards certainly do not cover the many and varied contributions made by CMAS community members, it is a symbolic way for the CMAS Center to say thank you to all who have contributed over the years.