

Air Quality Applied Sciences Team 3rd Meeting (AQAST 3)
Tong Room (1003), Engineering Centers Building, 1550 Engineering Drive
University of Wisconsin - Madison
June 13-15, 2012
<http://www.ssec.wisc.edu/meetings/aqast/>

Wednesday June 13

8:30-9:00 Registration, coffee

Opening session

9:00-9:15 Welcome and AQAST overview (Daniel Jacob, Harvard)
9:15-9:25 Update on the NASA Applied Sciences Program (John Haynes, NASA)
9:25-9:35 CIMSS/SSEC (Brad Pierce, NOAA and Steve Ackerman, U. Wisconsin)
9:35-9:45 SAGE (Tracey Holloway, U. Wisconsin)

AQAST Investigator Projects (IP) session

Chair: Daniel Jacob

9:45-10:00 Characterizing Ozone Precursor Emissions in the Upper Midwestern U.S. (Tracey Holloway, U. Wisconsin)
10:00-10:15 Integration of climate impacts into design of ozone and aerosol control strategies (Daven Henze, U. Colorado)
10:15-10:30 Impacts of climate change on air pollution meteorology for PM_{2.5}: A multi-model ensemble assessment (Loretta Mickley, Harvard)
10:30-10:45 Break

AQAST Investigator Projects (IP) session (continued)

Chair: Bryan Duncan

10:45-11:00 Indicator ratios from space (Bryan Duncan, NASA GSFC)
11:00-11:15 Indian power-plant NO_x emissions from OMI and inventories (David Streets, ANL)
11:15-11:30 Continued air quality forecast support in Maryland using ensemble statistical models (Gregory Garner, Penn State)
11:30-11:45 Simulating prescribed fire impacts for air quality (Ted Russell, Georgia Tech)
11:45-12:00 Progress Report on Tiger Team on 2011 Ozone Violations in Maryland (*Tiger Team* - Anne Thompson, Penn State)
12:00-12:15 Chemical data assimilation tested for national AQ forecasting (*Tiger Team* - Pius Lee, NOAA/ARL)

12:15-1:45 Lunch

AQAST IP session (cont.)

Chair: Anne Thompson

1:45-2:00 Summary of AQAST Physical Atmosphere Meeting held in Atlanta April 25-26 (Richard McNider, U. Alabama)
2:00-2:15 Strong stratospheric impacts on surface ozone episodes over the western United States in spring: Not so rare events? (Meiyun Lin, Princeton)
2:15-2:30 Status of the St. Louis Ozone Garden (Jack Fishman, Saint Louis U.)

- 2:30-2:45 NO_x chemistry in CMAQ evaluated with remote sensing (Russ Dickerson, U. Maryland)
- 2:45-3:00 Estimating anthropogenic NO_x emission over the U.S. using satellite observations (Anne Boynard, NCAR)
- 3:00-3:15 Improving air quality analysis through a closer integration of observations and models (Scott Spak, U. Iowa)
- 3:15-3:30 Break

AQSAT IP Session (cont.) and related ASP activities

Chair: Jack Fishman

- 3:30-3:45 Satellite observations of AOD and fires for AQ applications (Edward Hyer, NRL)
- 3:45-4:00 Ammonia emissions, nitrogen deposition (Fabien Paulot and Raluca Ellis, Harvard)
- 4:00-4:15 The Berkeley High Spatial Resolution OMI NO₂ Retrieval: recent trends in NO₂ (Ron Cohen, UC Berkeley)
- 4:15-4:30 Evaluation of lower/middle tropospheric ozone from air quality models using TES and ozonesondes (Greg Osterman, JPL)
- 4:30-4:50 The NASA Applied Remote Sensing Training Program (Ana Prados, NASA GSFC – *also includes Duncan Tiger Team report*)

IP Posters (to be shown at poster session):

- NCAR/ACD Updates to AQAAT Activities (Gabriele Pfister, NCAR)
- Satellite observations of AOD and fires for AQ applications (Edward Hyer, NRL)
- Satellite-observed trend in sulfate concentrations in western US (Yang Liu, Emory U.)
- Using satellite data to identify sources of SO₂ and mercury in the Midwest (Benjamin de Foy, Saint Louis U.)

ASP and related posters (to be shown at poster session):

- Boundary layer height studies with CALIOP (Ralph Kuehn, U. Wisconsin)
- Establishing process-oriented constraints on chemistry-climate models for projecting ozone air quality over the next century (Arlene Fiore, Columbia)
- TBD (Olivia Clifton, U. Wisconsin)
- GOES-R AWG Visibility Retrieval (Jason Brunner, CIMSS/UW Madison)
- Wisconsin Horizontal Interpolation Program for Satellites (Erica Scotty, UW – Madison)
- Implications of biogenic emissions interannual variability on US air quality (Adetutu Aghedo, Rice)
- Impacts of changing circulation on North Atlantic productivity (Alexis Santos, UW – Madison)

5:00-6:30 Poster Session and Reception - Mesozoic Garden, Wisconsin Institute for Discovery

Thursday June 14

8:30-9:00 Coffee

Air Quality Managers' session

Chairs: Tracey Holloway, Brad Pierce

9:00-9:20 The Southeast Michigan Air Quality Study Group (George Wolff, AIR, Inc.)
9:20-9:40 LADCO's role in the state air quality planning process (Donna Kenski, LADCO)
9:40-10:00 Current and future air quality issues facing the states (Bart Sponseller, Wisconsin DNR)
10:00-10:20 Current state of practice in identifying and forecasting stratospheric intrusion events (Patrick J. Reddy, Colorado Department of Public Health and Environment, and Brad Pierce, NOAA)
10:20-10:40 EPA Region 5 (TBD)
10:40-11:00 Break

11:00-12:15 Panel discussion with the session speakers (Tracey Holloway and Brad Pierce, moderators)

12:15-1:45 Lunch

AQAST Tiger Teams session

Chair: Ted Russell

1:45-2:00 Processes contributing to model differences in N. American background ozone estimates (Arlene Fiore, Columbia)
2:00-2:15 Improved Lateral Boundary Conditions for NAQFC NAM-CMAQ AQ forecasts (Brad Pierce, NOAA)
2:15-2:30 Emissions estimation from satellite retrievals: applications to U.S. air quality management (David Streets, ANL)
2:30-2:45 Source contributions to seasonal vegetative exposure to ozone (Daven Henze, U. Colorado)
2:45-3:00 Interannual variability in biogenic emissions driven by dynamic vegetation conditions (Dan Cohan, Rice)

Tiger Team posters (to be shown at poster session):

- Insolation and photolysis Archive (Richard McNider, U. Alabama)
- Intensive synchronized PM ground sampling during the DISCOVER-AQ campaign (Yang Liu, Emory U.)

3:00- Tiger Team breakout sessions

Friday June 15

AQAST executive session – open to all

Chair: Daniel Jacob

8:30-9:00 Coffee

9:00-9:30 AQAST Education and Public Outreach (Jack Fishman, Saint Louis U.)
9:30-10:00 AQAST Year 1 in review (Daniel Jacob, Harvard)
10:00-10:30 Overview of Year 2 Investigator Projects (Daniel Jacob, Harvard)
10:30-11:00 Discussion of air quality managers' session, action items (Daniel Jacob, Harvard)
11:00-11:30 Open discussion of other AQAST issues
11:30 Adjourn