



Chapter 11 – AMAD Science Leadership

Contents

Table 11.1 Leadership Activities

Table 11.2 Awards and Honors

Table 11.3 Journal Editorial Manuscript Reviews

Table 11.4 Collaborative Research Activities



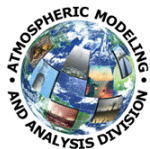


Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Appel, Wyatt	Co-lead, AMAD Model Evaluation Team	2007–2008
	Co-lead, Development of the Atmospheric Model Evaluation Tool (AMET)	2005–2008
	Invited Presenter, EPA’s 9 th Modeling Conference	2008
	Treasurer, Central North Carolina Chapter of the American Meteorological Society	2002–2006
Bash, Jesse	Adjunct Professor, University of Connecticut	2008
	Member, American Meteorological Society	2008
	Grant proposal reviewer, Connecticut Institute of Water Resources	2007
Benjey, William	Task Order Project Officer, air quality modeling support to AMAD under SES3 Contract (TO 1505)	2005–present
	Member, EPA Office of Air Quality Planning and Standards (OAQPS) Emission Modeling Framework Team	2005–2008
	Member, EPA OAQPS Emission Modeling Team	2004–2008
	Lead and Project Officer, Community Modeling and Analysis System (CMAS) air quality activity	2003–2008
	Member, Atmospheric Modeling Division’s Climate Impact on Regional Air Quality (CIRAQ) research team	2003–2008
	Task Order Project Officer, air quality modeling support to AMAD under FAIR II Contract (TO 2045)	2003–2008
	Lead, development of Spatial Allocation Tool for air quality modeling support	2003–2008
	Quality Assurance Representative, Air Surface Processes Modeling Branch	2003–2008
	Co-editor, Special Issue of <i>Atmospheric Environment</i> on Air Quality Model Evaluation	2006
Bhave, Prakash	Research mentor for NERL Postdoctoral Fellow, Heather Simon	2008–present
	Research mentor for National Research Council (NRC) Postdoctoral Fellow, Garnet Erdakos	2008–present
	Research mentor for NERL Postdoctoral Fellow, James Kelly	2007–2008
	Leader, Community Multiscale Air Quality model (CMAQ) Chemistry & Aerosols Workgroup	2006–2008
	Member, ORD National Center For Environmental Research (NCER) writing teams for Science to Achieve Results (STAR) requests for applications	2006–2008
	Research mentor for NERL Postdoctoral Fellow, Adam Reff	2005–2008
	Member of Organizing Committee, International Aerosol Modeling Algorithms Conference	2008
	Research mentor for North Carolina School of Science & Mathematics high school student, Connie Chu	2005–2006
	Member, ORD/NCER STAR grant proposal relevancy review panels	2003–2006

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Bhave, Prakash (cont'd.)	Research mentor for NERL Postdoctoral Fellow, Chris Nolte	2003–2005
Brown, Sherry	Member, EPA Web Work Group	2004–present
	Member, ORD Safety Committee	2003–present
	Member, AMAD Space Committee	2003–present
	AMAD Customer Technology Solutions Coordinator	2008
Bullock, Russell	Member, United Nations Environment Program (UNEP) Global Partnership on Mercury Transport and Fate Research	2006–2008
	Member, American Meteorological Society (National and Local Chapters)	1984–2008
	Consultant to the Great Basin Mercury Working Group on Source Assessment of Atmospheric Mercury Deposition	2008
	Member, Duke University's Nicholas School Mercury Working Group (sponsored by the North Carolina Department of Environment and Natural Resources)	2005–2007
	Member, Expert Panel on Source Attribution for Mercury Deposition for 8 th International Conference on Mercury as a Global Pollutant in Madison, WI	2005–2007
	Member, International Transport of Air Pollutant (ITAP) Interagency Work Group	2003–2007
	Consultant to the Wisconsin Natural Resources Board on Source Assessment of Atmospheric Mercury Deposition	2007
	Member, Scientific Committee for the 8 th Conference on Meteorology, Climatology and Atmospheric Physics in Athens, Greece	2005–2006
	Technical monitor for Community Multiscale Air Quality model (CMAQ) modeling in support of the Clear Air Interstate Rule (CAIR), Clean Air Mercury Rule (CAMR), and CAMR Reconsideration	2004–2006
	Member, United Nations Economic Commission for Europe (UNECE) Task Force on Hemispheric Transport of Air Pollution	2006
	Member, European Monitoring and Evaluation Program (EMEP) Task Force on Measurement and Modeling	2006
	Member, EPA Mercury Action Plan Work Group	2003–2005
	Member, Arctic Council Action Plan (ACAP) Mercury Study Team	2003–2004
	Member, Executive Office of the President/Office of Science and Technology Policy Interagency Work Group on Mercury	2002–2004
Member, Watershed Analysis Risk Management Framework (WARMF) mercury model review panel for Minnesota Sea Grant	2004	
Carlton, Annmarie	Vice-Chair, Aerosol Chemistry Working Group, American Association for Aerosol Research (AAAR)	2008, 2009
	Platform Session Co-chair, <i>American Association for Aerosol Research</i>	2007, 2008
	Session Chair, American Geophysical Union	2008



Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Carlton, Annmarie (cont'd.)	Research Mentor, for Student Services Employee, Harshal Parikh	2008
Ching, Jason	Contributor, Megacities: Emissions, urban, regional and Global Atmospheric POLLution and climate effects, and Integrated tools for assessments and mitigation (MEGAPOLI) proposal development to European Union	2007–2008
	Recipient, EPA Advanced Monitoring Initiative Award	2005–2008
	Contributor, Institute for Multidimensional Air Quality Studies fine-scale modeling studies	2004–2008
	Session Chair, American Meteorological Society (AMS) Joint Air Pollution Meteorology and Air & Waste Management Association (A&WMA) Conferences	2006, 2008
	Contributor, NASA Decision Support System Proposal for air quality to exposure modeling	2008
	Contributor, Community Modeling and Analysis System (CMAS) fine-scale modeling initiatives	2006–2007
	Contributor, multiscale modeling at University of Chicago Center for Integrating Statistical and Environmental Sciences (CISES)	2004–2007
	Member, American Meteorological Society, Board of Urban Environment	2004–2007
	Program Co-chair, AMS 7 th Urban Environment Conference; also chair of National Urban Database and Access Portal Tools (NUDAPT) and two other platform and poster sessions	2007
	Group Lead on Mesoscale-Urban Modeling, European Cooperation in Science and Technology of the European Cooperation in Science and Technology-728 (COST 728) Workshop	2007
	Contributor, Office of the Federal Coordinator for Meteorology (OFCM) proposal for urban database	2005–2006
	Session Chair, AMS 5 th and 6 th Urban Environment Conferences	2004–2006
	Contributor, National Urban Air Toxics Research Center (NUATRC) (Mickey Leland Center) hot spot modeling project	2004–2005
	Contributor, US Weather Research Program (USWRP) urban testbed	2005
	Developer, Enhanced Delaware Air Toxics Assessment Study (EDATAS) Delaware Department of Natural Resources and Environmental Control (DNREC) mobile monitoring sampling in Wilmington, DE	2005
	Spearheaded the new American Meteorological Society Landsberg Award for urban meteorology	2004
Cooter, Ellen	Member, Sigma Xi	1994-present
	Associate Member, American Association of State Climatologists	1980-present
	AMAD Lead, Ecosystem Services Research Program (ESRP) Future Midwest Landscape research theme	2008–present

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Cooter, Ellen (cont'd.)	Associate Editor, <i>Journal of Applied Meteorology and Climate</i>	2005–present
	EPA representative to the Office of the Federal Coordinator for Meteorology, Committee for Climate Analysis, Monitoring and Services (CCAMS)	2003–present
	Member of Editorial Board, <i>Climate Research</i>	1990–present
	Oak Ridge Institute for Science and Education (ORISE) Mentor	2007–2008
	Acting AMAD Coordinator, ESRP	Jun 2007– Oct 2007
	Acting Branch Chief, Air-Surface Processes Modeling Branch (APMB)	Jun 2007– Sep 2007
	Co-lead, Climate Impact on Regional Air Quality (CIRAQ) Team	2004–2005
Crooks, James	Member, International Society for Environmental Epidemiology	2008–present
	Member, American Statistical Association	2007–present
Dennis, Robin	Member, Ecological Society of America	2008-present
	Member, Clean Air Status and Trends Network (CASTNet) Redesign Committee	2008-present
	Member, Albemarle-Pamlico National Estuary Program Science and Technical Advisory Committee (APNEP-STAC) Executive Board	2008–present
	Contributor, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Multipollutant Assessment	2006–present
	Member, Albemarle-Pamlico National Estuary Program Science and Technical Advisory Committee (APNEP-STAC)	2005–present
	U.S. Representative to the EMEP Steering Body, European Long-Range Transport of Air Pollution Monitoring and Evaluation Program (EMEP)	1996–present
	Member, Chesapeake Bay Modeling Subcommittee	1994–present
	Member, American Geophysical Union	1994-present
	Member, Air & Waste Management Association	1986-present
	Member, American Meteorological Society	1986-present
	Member, Sigma Xi	1972-present
	Member, American Association for Aerosol Research	2003-2007
	Session chair, Model Performance Evaluation, at 2005 AAAR International Specialty Conference on the Particulate Matter Supersites Program & related Studies	2005
	Co-Chair with Canadian Counterpart of US-Canada EMEP Workshop on Monitoring and Modeling	2004
	Contributor, NARSTO Particulate Matter Assessment	2001–2003
Member, Steering Committee for N2001 the Second International Nitrogen Conference	2000-2001	

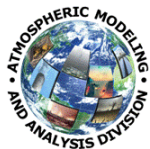


Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Dennis, Robin (cont'd.)	Member, Study Team for Nitrogen loading in coastal water bodies: an atmospheric perspective	1999-2001
Eder, Brian	Developer and presenter, educational materials/activities to numerous K-12 educational institutions.	Ongoing
	Adjunct Professor, North Carolina State University, Committee of M.S. student	Ongoing
	Session Chair, 15th Joint Conference on the Applications of Air Pollution Meteorology with the Air & Waste Management Association (A&WMA)	2008
	Reviewer, EPA's Global Change Research Program 2007 Interim Air Quality Assessment Report	2007
	Mentor for Postdoc Daiwen Kang	2004-2005
	Mentor for Postdoc Shaocai Yu	2003-2005
	Adjunct Professor, University of North Carolina, Committee of Ph.D. student	2003
Foley, Kristen	Member, American Statistical Association	2005-present
	Participant, U.S. Office of Personnel Management Course on Facilitative Leadership	2008
	Member, joint ORD/Office of Air and Radiation Workgroup, Accountability: Evaluating the Effectiveness of the NO _x State Implementation Plan (SIP) Call Program in Improving Ozone Air Quality Over the Eastern U.S.	2007
	Invited Presenter, 17 th Annual International Society of Exposure Analysis Conference: Symposium on Spatial and Spatio-temporal modeling of exposure data	2007
	Session Chair, Joint Statistical Meeting Session on Climate, Weather, and Health: Novel Applications of Spatial and Temporal Analyses	2006
Garcia, Valerie	Co-lead, joint Office of Air Quality Planning and Standards (OAQPS)/NERL Data Analysis Workgroup	2008
	Lead, multidiscipline Accountability Indicators project	2008
	Session Chair, EPA/ORD Research Approaches for Assessing Public Health Impacts of Risk Management Decisions, Assessing the Clean Air Interstate Rule, Research Triangle Park, NC	2008
	Section Lead, NERL Air Implementation Plan, Accountability	2007
	Session Chair, American Geophysical Union Joint Assembly, Integration of Satellite, Modeled, and Ground Based Aerosol Data for use in Air Quality and Public Health Applications, Baltimore, MD	2006
	Lead, Center of Excellence for Computational Science program	2004, 2005
	Conference Co-lead (with NIEHS), Integrated Earth Observations: Application to Air Quality and Human Health, Research Triangle Park, NC	2005
	Session Chair, EPA Science Forum: Science and Innovation to Protect Health and Environment, Washington, D.C.	2004



Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Gilliam, Robert	Member, Multi-agency Multi-Function Phased Array Radar (MPAR) workgroup	2007–2008
	Member, Multi-agency Weather Information for Surface Transportation (WIST) workgroup	2004–2007
Gilliland, Alice	Participant, Federal Executive Institute “Leadership for a Democratic Society” program	Dec 2008, Mar 2009
	Member, External Advisory Board for the Community Modeling and Analysis System (CMAS)	Oct 2008–present
	AMAD’s Theme Lead, Climate and Air Quality Interactions program	2006–present
	Subgroup Lead, NERL model workgroup team	2007–2008
	Reviewer for a NSF new career faculty proposal	Nov 2008
	Reviewer for an Environment Canada proposal	2008
	Participant, Office of Personnel Management Leadership Communications Course	2007
	Participant, Office of Personnel Management Facilitative Leadership Course	2006
Godowitch, James	Member, AMAD Chemistry Workgroup	2007–2008
	Member, AMAD Nitrogen Action Team	2007–2008
	Member, AMAD Model Evaluation Team	2006–2008
	Member, Community Multiscale Air Quality model (CMAQ) Development Team	2003–2006
Heist, David	Invited member, Scientific Committee for the International Workshop on Physical Modeling of Flow and Dispersion Phenomena	2007, 2009
	Member, Near-Road Research Team	2006–2008
	Liaison, NERL Analytical Chemistry Center of Excellence	2008
	Member, Interagency Steering Committee on Multimedia Environmental Models (EPA, DOE, NRC, USGS, USDA, USACE)	2004–2005
Herwehe, Jerold	Member, Air & Waste Management Association (A&WMA)	2008–present
	Member, AMAD Web Site Committee	2008–present
	Member, Weather Research and Forecasting (WRF) Model Workgroup	2006–present
	Member, 2-Way Coupled WRF-CMAQ Workgroup	2005–present
	Member, American Geophysical Union (AGU)	1986–present
	Member, American Meteorological Society (AMS)	1978–present
	Member, Air Quality Forecasting Team	2005–2008
	Member, NOAA-EPA’s National Air Quality Forecasting Group (organization: NOAA/National Weather Service)	2005–2008
Invited Presenter, East Tennessee Ozone Study (ETOS) 2006 Science Workshop, Oak Ridge, TN (organization: NOAA/Air Resources Laboratory [ARL])	2006	

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Herwehe, Jerold (cont'd.)	Member and NOAA Air Resources Laboratory (ARL) Representative, Eastern Area Modeling Consortium (EAMC) (organization: USDA Forest Service)	2002–2005
	Invited Presenter, Annual EAMC Meetings, East Lansing, MI (organization: USDA Forest Service)	2002, 2003, 2004
	Invited Presenter, Workshops for the Watt Road Environmental Laboratory Initiative, Oak Ridge, TN (organization: DOE/Oak Ridge National Laboratory/National Transportation Research Center)	2002, 2004
	Invited Presenter, Oak Ridge National Laboratory (organization: DOE)	2002
Hutzell, William	Convener and Chair, American Geophysical Union (AGU) Session on Trace Components in Atmospheric Particulate Matter: Monitoring and Modeling	2007
Isakov, Vlad	Member, American Meteorological Society (AMS)/EPA Regulatory Model Improvement Committee (AERMIC)	2008–present
	Member, Oversight Panel for the Transportation Research Board's Airport Cooperative Research Program (ACRP) research project "Quantifying Contribution to Local Air Quality Impacts from Airport-Related Emissions"	2008–present
	Member, Advisory Committee, California Energy Commission, Research Project on Near-Source Dispersion from Distributed Generation Sources	2007–present
	Member, ORD Red Team – air modeling expert	2005–present
	Member, Local Air Quality Panel for the International Civil Aviation Organization's Committee on Aviation Environmental Protection (CAEP) Impacts Workshop on Assessing Current Scientific Knowledge, Uncertainties and Gaps Quantifying Climate Change, Noise and Air Quality Aviation Impacts, Montreal, Canada	2007
	Invited speaker, 29 th NATO International Technical Meeting on Air Quality, Aveiro, Portugal	2007
	Invited speaker, international conference, "Air Quality Assessment for Europe: From local to continental scale," Prague, Czech Republic	2006
	Invited speaker, international conference, NOAA/EPA Golden Jubilee Symposium, Research Triangle Park, NC	2005
Luecken, Deborah	Member, Environmental Affairs Advisory Board to Durham City and County Councils	2005–present
	Graduate Faculty, University of North Carolina, Chapel Hill, Environmental Science and Engineering Department	2002–present
	Panel Facilitator and Session Co-chair, Technical Organizing Committee, International Conference on Atmospheric Chemical Mechanisms	2006, 2008
	Session Co-chair, Organizing Committee, Coordinating Research Council Mobile Source Air Toxics Workshop	2006, 2008



Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Luecken, Deborah (cont'd.)	Member, Reactivity Research Working Group	1998–2005
Mathur, Rohit	Adjunct Professor, North Carolina State University, graduate student thesis committees (3 M.S., 6 Ph.D.)	1999–present
	Lead, Community Multiscale Air Quality (CMAQ) Model Development	2007–2008
	Science Lead, Air Quality Forecast Model Development	2004–2008
	Proposal Reviewer, National Science Foundation	2004, 2005, 2008
	Session Co-chair, Air Quality Forecasting, Community Modeling and Analysis System (CMAS) Center, University of North Carolina at Chapel Hill	2008
	Invited Presenter, American Geophysical Union, Special Session on Evaluation of Air Quality Models and Assessment of Emission Inventories Using Bottom-Up and Top-Down Approaches	2007
	Invited Presenter, EPA Science Advisory Board, Integrated Nitrogen Committee	2007
	Session Co-chair, CMAS Center, University of North Carolina at Chapel Hill, Air Quality Model Developments	2007
	Presenter, Plenary talk, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Workshop on Particulate Matter (PM) Modeling	2006
	Invited Presenter, National Center for Atmospheric Research, Community Workshop on Air Quality Remote Sensing from Space: Defining an Optimum Observing Strategy	2006
	Member, American Meteorological Society, Committee on Atmospheric Chemistry	2002–2005
	Invited Presenter, NASA/NOAA International Consortium for Atmospheric Research on Transport and Transformation (ICARTT), Data Analysis Workshop	2005
	Mobley, David	Member, Atmospheric Research Committee, Coordinating Research Council
Member, Science Advisory Committee, Houston Advanced Research Center		2006–present
Member, Diesel Emissions Characterization Panel, Coordinating Research Council		2005–present
AMAD Coordinator, NERL Mentoring Program		2004–present
Coordinator, EPA SPECIATE Development Team		2002–present
Leader, Emissions Team, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO)		2002–present
Registered Professional Engineer		1976–present
Member, Air and Waste Management Association		1973–present
Member, American Society of Mechanical Engineers		1970–present

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Mobley, David (cont'd.)	Embassy Science Fellow to New Zealand	Jan–May 2008
	Director, Air and Waste Management Association	2006–2008
	Secretary, Steering Committee for Special Issues of Air & Waste Management Association (A&WMA) <i>EM Magazine</i> : <ul style="list-style-type: none"> ▪ Exposure Science: The Link between Environmental Pollution and Human and Ecosystem Health ▪ Finding Links between Air, Land, and Water Quality ▪ Understanding the Relationships between Air Quality and Human Health ▪ Global Climate Interactions 	Jul 2008 Dec 2007 Sep 2006 Oct 2005
	Vice President, Air and Waste Management Association	2008
	Secretary, EPA-NOAA Federal Managers Group on Air Quality	2005–2007
	Member, NARSTO Reactivity Research Working Group	2005–2006
	Chair, EPA Katrina Session, Air & Waste Management Association (A&WMA) 99th Annual Conference and Exhibition, New Orleans, LA	Jun 2006
	Organizer, EPA-NOAA Scientist-to-Scientist Meetings: <ul style="list-style-type: none"> ▪ Boulder, CO ▪ Research Triangle Park, NC ▪ Annapolis, MD ▪ Laurel, MD 	Oct 2004 Mar 2004 Mar 2005 Jun 2005
	Co-chair, NARSTO Emission Inventory Assessment	2003–2005
	Organizer and Chair, NARSTO Emission Inventory Workshop, Austin, TX	Oct 2003
Napelenok, Sergey	Member, American Geophysical Union	2008-present
	Member, European Geosciences Union	2008-present
	Member, Toastmasters International	2008-present
	Member, American Association for Aerosol Research	2005-present
	Member, American Meteorological Society	2000-present
	Invited Speaker, Georgia Institute of Technology, Department of Civil and Environmental Engineering	2008
	Invited Speaker, Washington State University, Department of Civil and Environmental Engineering	2008
Nolte, Christopher	Member, American Geophysical Union	2008–present
	Member, American Association for Aerosol Research	2005–present
	Reviewer, EPA Science to Achieve Results (STAR) Graduate Fellowship Program	2007
	Member, EPA Line Item Peer Review Panel	2005
Otte, Tanya	Member, American Meteorological Society	2008-present
	Lead, AMAD Weather Research and Forecasting (WRF) Model Team	2006–present

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Otte, Tanya (cont'd.)	Lead, local meteorological modeling work group	2001–2005
Perry, Steven	Member, Near Road Research Team	2006–2008
	Science Lead, EPA Fluid Modeling Facility	2004–2008
	Member, American Meteorological Society (AMS)/EPA Regulatory Model Improvement Committee	2004–2008
	Member, EPA/Industry Spray Drift Task Force	2004–2007
	Member, NERL Air Research Implementation Plan	2007
	Member, American Meteorological Society Committee on Meteorological Aspects of Air Pollution	2004–2005
	Member, Interagency Steering Committee on Multimedia Environmental Models (EPA, DOE, NRC, USGS, USDA, USACE)	2004–2005
	Invited Speaker, EPA Science Forum	2003
Pierce, Thomas	Co-chair, NERL Implementation Plan for Clean Air Research	2007–2008
	EPA/ORD Reviewer, Proposed Revision to Prevention of Significant Deterioration (PSD) Requirements for Modeling and Meteorological Data	2007–2008
	EPA Representative, Office of Federal Coordinator for Meteorology's Joint Action Group on Wildland Fire Weather Needs Assessment	2006–2008
	Session Chair, 7 th Community Modeling and Analysis System (CMAS) Conference, Chapel Hill, NC	2008
	Acting Director, NERL Ecosystem Research Division, Athens, GA	2007
	Facilitator, Break-out Session on Sources/Sinks at the American Meteorological Society (AMS) "Workshop on the Evaluation of Regional-Scale Air Quality Modeling Systems," Research Triangle Park, NC	2007
	Invited Participant, Gordon Research Conference on Biogenic Volatile Organic Compounds (VOCs) in the Atmosphere, Ventura, CA	2007
	Invited Speaker, Coordinating Research Council's Annual Mobile Source Air Toxics Workshop, Phoenix, AZ	2006
	Reviewer, Elsevier's <i>Wildland Fires and Air Pollution</i>	2006
	Reviewer, Springer-Verlag's <i>Remote Sensing and Modeling Applications to Wildland Fires</i>	2006
	Session Chair, EPA's 15 th International Emissions Inventory Conference, New Orleans, LA	2006
	Session Chair, 5 th CMAS Conference, Chapel Hill, NC	2006
	Invited Speaker, AMS NOAA/EPA Golden Jubilee Symposium on Air Quality Modeling and Its Application, Research Triangle Park, NC	2005
	Session Chair, EastFIRE Conference on Wildland Fire Research in the Eastern United States, Fairfax, VA	2005

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Pierce, Thomas (cont'd.)	Session Chair, EPA's International Conference on Emission Inventories, Las Vegas, NV	2005
	Reviewer, Natural Sciences and Engineering Research Council of Canada	2004
Pinder, Robert	Session Co-chair, Fall American Geophysical Union (AGU) Meeting	2008
	Reviewer, National Agri-Environmental Standards Initiative, Environment Canada	2008
Pleim, Jonathan	Member, Weather Research and Forecasting (WRF) Model Planetary Boundary Layer (PBL) working group	2007–present
	Member, joint ORD/Office of Air Quality Planning and Standards (OAQPS) Meteorology Team	2007–present
	Leader, WRF-CMAQ workgroup	2006–present
	Member, WRF Chemistry working group	2004–present
	Member, American Meteorological Society (AMS)	2000-present
	Invited Speaker, National Center for Environmental Prediction	2007
	Proposal Reviewer, National Science Foundation	2006
	Co-lead, AMAD Mesoscale Model Development Team	2003–2005
	Member, External Advisory Committee of Canadian Program for Energy Research and Development	2005
Pouliot, George	Member, Community Multiscale Air Quality model (CMAQ) chemistry workgroup, NOAA Atmospheric Sciences Modeling Division (ASMD)	2007–2008
	Member, WRF-CMAQ two way coupling team, NOAA/ASMD	2007–2008
	Member, Emission Modeling Team, Office of Air Quality Planning and Standards	2003–2008
	Member, Air Quality Forecasting Team, NOAA/ASMD	2002–2008
	Invited Lecturer, North Carolina State University, Air Quality Modeling Class	2006, 2007, 2008
	Member, User Advisor Group of NASA Wildland Fire Emissions Information System	2008
	Chair, Plenary Session at the 2007 EastFire Conference	2007
Rao, S.T.	U.S. Representative, NATO Science for Peace and Security (SPS) Scientific Committee for International Technical Meeting on Air Pollution Modelling and Its Applications	2004–present
	Member, Atmospheric Impacts Committee of the Coordinating Research Council, sponsored by the auto and oil industries	2004–present
	Member, Executive Board of University of Waterloo's Center for Atmospheric Sciences, Waterloo, Ontario, Canada	2004–present
	Adjunct Professor of Atmospheric Science, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC	2002–present

Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Rao, S.T. (cont'd.)	Member of Editorial Board, <i>EM Magazine</i> of the Air and Waste Management Association	2001–present
	Member of Editorial Board, <i>Journal of the Air & Waste Management Association</i>	2001–present
	Member of Editorial Board, <i>Environmental Fluid Mechanics Journal</i>	1998–present
	Member, Project Advisory Group, New York State Energy Research and Development Authority	1998–present
	Member of Editorial Board, <i>Atmospheric Environment</i>	1996–present
	Member, Meteorology Committee, Atmospheric Deposition & Chemistry Committee, and Education & Training Committee, Air & Waste Management Association	1989–present
	External Examiner, Ph.D. dissertations in meteorology, Indian Institute of Technology, New Delhi, and Andhra University, India	1986–present
	External Examiner, Ph.D. dissertations in meteorology, University of Athens, Athens, Greece	1986–present
	External Examiner, Ph.D. dissertations in meteorology, North Carolina State University, Raleigh, NC	1986–present
	Peer Reviewer for journal articles, research grant submissions	1985–present
	Advisor to 17 graduate students, University at Albany, Albany, New York (3 doctoral students received distinguished research awards at the University of Albany)	1976–2002
	Professor of Environmental Statistics, Department of Biometry and Statistics, University at Albany, Albany, NY	1998–2007
	Adjunct Senior Research Associate, Atmospheric Sciences Research Center, University at Albany, Albany, NY	2001–2003
	Research Professor of Atmospheric Sciences, Department of Earth and Atmospheric Sciences, University at Albany, Albany, NY	1976–2002
	Member – Senate of the State University of New York at Albany	1999-2001
AMS Certified Consulting Meteorologist	1980-present	
Roselle, Shawn	Member, American Geophysical Union	1991–present
	Invited Presenter, ACCENT-CMAS Training Workshop on Air Quality Modeling, Sofia, Bulgaria	2006
	Co-lead, AMAD Mesoscale Model Development Team	2003–2005
	Co-lead, AMAD Model Evaluation Team	2003–2005
Sarwar, Golam	President, South Atlantic Section, Air & Waste Management Association	2009
	Member, SPECIATE project	2005–2008
	Vice President, South Atlantic Section, Air & Waste Management Association	2008
	Embassy Science Fellow, U.S. Consulate, Hong Kong	2008
	Board Member, Research Triangle Park Chapter, Air & Waste Management Association	2006–2007

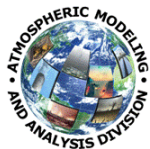


Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Sarwar, Golam (cont'd.)	Invited Presenter, North Carolina State University, impact of chlorine emission and chemistry in the U.S.	2005–2007
Schere, Kenneth	Steering Committee Member, Air Quality Model Evaluation International Initiative	2008–2009
	Member, Mesoscale Modeling Action of the European Science Foundation's Cooperation on Science and Technology	2007–2009
	Member, Committee on Meteorological Aspects of Air Pollution of the AMS	2006–2009
	Member, National Center for Atmospheric Research (NCAR) Weather Research and Forecast (WRF) model coupled with Chemistry (WRF-Chem) Model Working Group	2005–2009
	Member, Air and Waste Management Association	1998–2009
	Member, American Meteorological Society (AMS)	1975–present
	Member, NERL Modeling Workgroup	2007–2008
	Review Panel Member, NOAA Air Quality Forecast Design Review	2008
	Organizing Committee Member, EPA Workshop on Collaborative Approaches to Integrated Modeling	2008
	Invited Panel Member, AMS 2008 Annual Meeting, Panel on Enhancing the Connectivity between Research and Applications	2008
	Steering Committee Member, EPA/AMAD Workshop on Regional-Scale Air Quality Model Evaluation	2006–2007
	Invited Speaker, NOAA Atmospheric Chemical Modeling Workshop, Boulder, CO	2007
	Review Panel Member, EPA grants proposal review on Uncertainty Analyses of Models in Integrated Environmental Assessments	2007
	Presenter, Briefing to NOAA Office of Atmospheric Research Deputy Administrator on Air Quality Modeling Research in NOAA Atmospheric Sciences Modeling Division (ASMD)	2007
	Invited Presenter, International Conference on Atmospheric Chemical Mechanisms, Davis, CA	2006
	Invited Speaker, 2006 AMS Annual Meeting, Emergence of Numerical Air Quality Forecast Models and Their Applications	2006
	Invited Speaker, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Workshop on Applications of Particulate Matter Models for Source Apportionment and Air Quality Management	2006
	External Advisory Committee Member, University of Waterloo (Canada) Centre for Atmospheric Sciences	2003–2005
	Invited Presenter, Seminars at North Carolina State University and University of Houston, EPA Community Multiscale Air Quality (CMAQ) Model – Overview and Applications	2005
	External Advisory Committee Member, Columbia University, Global Climate Research Program	2003–2004



Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Schere, Kenneth (cont'd.)	Invited Lecturer, Air Quality Prediction Training, Environment Canada, Halifax, Nova Scotia	2004
Schwede, Donna	Steering Committee Member, NERL Safe Pesticides Safe Products (SP2) Implementation Plan	2007–2008
	Provider, technical assistance to EPA's Office of Air and Radiation, Clean Air Markets Division on dry deposition modeling for the Clean Air Status and Trends Network (CASTNET)	2003–2008
	Invited participant, U.S.-Canada Acid Rain Workshop: Modeling Environmental Response to Changes in Emissions and Deposition	2008
	Workshop Co-lead, NERL SP2 Spatially Explicit Risk Assessment Workgroup	2008
	Invited Participant, Oxides of Nitrogen and Sulfur (NO _x /SO _x) Secondary National Ambient Air Quality Standards (NAAQS) Workshop	2007
	Invited speaker: RTI International's Workshop on Nitrogen Deposition in North Carolina	2007
	Presenter, Ravenscroft School AP Environmental Science class	2007
	Presenter, Y.E. Smith Elementary School Science Day	2007
	Presenter, EPA Take Our Daughters and Sons to Work Day	2007
	Invited Participant, U.S.-Canada Joint Ammonia and Air Quality Science Planning Workshop	2006
	Presenter, North Carolina State University, Expanding Your Horizons in Math, Science and Technology Workshop	2005
	Invited Presenter, seminar at Duke University Nicholas School of the Environment	2004
Simon, Heather	Member, American Geophysical Union	2007-present
	Tutor, Studying Math or Reading Equals Success (SMORES) Tutoring Program, Walnut Creek Elementary School	2002–2008
	Head Teaching Assistant, Geology 302P: Sustaining a Planet, University of Texas at Austin	2007
	Member, University of Texas Environmental and Water Resource Engineering Graduate Student Seminar Committee	2006
	Teaching Assistant, Geology 302P: Sustaining a Planet, University of Texas at Austin	2006
	Presenter, Training Presentation on New Source Review Permitting at the Texas Commission on Environmental Quality (TCEQ) Environmental Trade Fair	2004
	Presenter, Training Presentation on Best Available Control Technology at the TCEQ Environmental Trade Fair	2003
Streicher, John	Treasurer, American Society for Photobiology	2003–2006, 2006–2009
	Member, European Society for Photobiology	2006–2008
	Member, Commission Internationale de l'Eclairage	2006–2008



Table 11 .1: Leadership Activities		
Name	Activity	Year(s)
Streicher, John (cont'd.)	Member, American Geophysical Union	2005–2008
	Member, American Soc. Photogrammetry and Remote Sensing	2004–2008
	Member, American Society for Photobiology	2000–2008
	Member, American Institute of Physics	1980–2008
Swall, Jenise	Member, International Society for Bayesian Analysis	2007-2008
	Member, Institute of Mathematical Statistics	2001-2008
	Member, American Statistical Association	1998-2008
	Member of Editorial Advisory Board, <i>Atmospheric Environment</i>	2008
	Chair, Committee on Student Awards and Travel Fellowships, Section on Statistics and the Environment, American Statistical Association	2007
Member, Committee on Student Awards and Travel Fellowships, Section on Statistics and the Environment, American Statistical Association	2005–2006	
Touma, Jawad	Member, EPA Office of Air Quality Planning and Standards (OAQPS) Lead National Ambient Air Quality Standards (NAAQS) Review Team	2006-2008
	Member, Office of Transportation and Air Quality (OTAQ) Mobile Source Air Toxics Rule Team	2005-2007
Walter, Gary	Member, ORD's Information Management/Information Technology Governance Board (IMGB)	2007–2009
	Co-chair, Human Computer Interaction and Information Management Coordinating Group (HCI&IM CG) Networking and Information Technology Research and Development Program	2006–2009
	Member, Interagency Working Group on High End Computing (HEC IWG)	2004–2009
	Member, Subcommittee on Networking and Information Technology Research and Development (NITRD) of the National Science and Technology Council (NSTC)	2003–2009
West, Jeffrey	Associate Management Coordinator, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) tri-national air quality research organization.	2000–present
Wong, David	Invited speaker, International Aerosol Modeling Algorithms Conference at University of California, Davis	2007
	Invited speaker, Workshop on Regional Air Quality Management in Rapidly Developing Economic Regions ZhuHai, China	2007
Young, Jeffrey	Lead, Community Multiscale Air Quality model (CMAQ) code optimization for Air Quality Forecast version	2002–2004

Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Benjey, William	NERL Special Achievement Award, Goal 5: Future Climate and Air Quality Modeling, Climate Impacts on Regional Air Quality Team	2007
	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) development team	2005
Bhave, Prakash	EPA Bronze Medal, SPECIATE database	2007
	NOAA Time-off Award, SPECIATE database	2006
	NERL Special Achievement Award, Goal 4: Integrate Environmental Science and Technology to Solve Environmental Problems, NERL Atmospheric Chemistry Team	2006
	EPA Bronze Medal, CMAQ model	2005
	NOAA Atmospheric Sciences Modeling Division Cash-in-Your-Account Award	2004
	Outstanding Reviewer Award, <i>Environmental Science & Technology</i>	2002
Brown, Sherry	Recognition of Excellence Award for EPA Headquarters Safety, Health and Environmental Management Audit	2006
Bullock, Russell	EPA Bronze Medal, awarded to the Nitrogen and Mercury Watershed TMDL Assessment Team for informing nitrogen and mercury watershed total maximum daily load (TMDL) assessments through access to airshed model outputs	2008
	EPA Bronze Medal, awarded to the Community Multiscale Air Quality (CMAQ) Multipollutant Model Team for exceptional accomplishments in developing, applying, and evaluating the CMAQ multipollutant air quality model for assessing co-benefits of potential emissions management strategies	2008
	NERL Special Achievement Award, given to the Multipollutant Model Development Team	2007
	NERL Time-off Award, for outstanding efforts toward the Clean Air Mercury Rule	2005
	EPA Bronze Medal, awarded to the CMAQ Modeling Team for the development and application of the Nation's premier numerical air quality simulation model	2005
Carlton, Annmarie	Rutgers University Distinguished Alumni (early career) award	2009
	Invited to U.S./Nordic Biogenic Secondary Organic Aerosols (SOA) Workshop in Scandinavia for emerging early career scientist	2007, 2008
	Emerging Scientist Award, Gordon Conference on Biogenic and the Atmosphere	2007
Cooter, Ellen	NERL Special Achievement Award, Climate Impact on Regional Air Quality (CIRAQ) Team	2007
	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) Team	2004
Dennis, Robin	EPA Bronze Medal, Nitrogen and Mercury Watershed Total Maximum Daily Load (TMDL) Assessments Team	2008
	NOAA Administrator's Award	2007

Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Dennis, Robin (cont'd.)	NERL Science Achievement Award, Leadership in Atmospheric Deposition to Watersheds and Multimedia Modeling	2006
	EPA Bronze Medal, Community Multiscale Air Quality (CMAQ) Model Development and Evaluation	2005
	EPA Bronze Medal, Contribution to North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Particulate Matter (PM) Assessment	2004
Eder, Brian	EPA Bronze Medal, The Community Multiscale Air Quality (CMAQ) Modeling Team	2005
Foley, Kristen	EPA Bronze Medal, "Accountability: Evaluating the effectiveness of the NO _x State Implementation Plan (SIP) Call program in improving ozone air quality over the Eastern U.S."	2008
	Student Paper Award, American Statistical Association Section on Bayesian Statistical Science	2006
Garcia, Valerie	EPA Silver Medal, "Pioneering efforts to develop, demonstrate, and deliver tools and data for ongoing surveillance of air quality and public health in support of the National Environmental Public Health Tracking Network (NEPHTN)"	2008
	EPA Bronze Medal, "Accountability: Evaluating the effectiveness of the NO _x State Implementation Plan (SIP) Call program in improving ozone air quality over the Eastern U.S."	2008
	NOAA Administrator's Award, "Visionary leadership in the development of cross-agency partnerships to apply a 'one atmosphere' air quality model"	2007
	EPA Bronze Medal, rapid deployment of air quality pilots	2004
Gilliam, Robert	NERL Climate Impact on Regional Air Quality (CIRAQ) Team award, Anticipating Future Environmental Issues	2007
	EPA Bronze Medal, CMAQ Team award from NERL	2006
	NOAA Cash-in-Your-Account Award, for the development and application of the Atmospheric Model Evaluation Tool (AMET) and work on climate analysis	2005
	NOAA Cash-in-Your-Account Award, for the model evaluation work and initial development of AMET	2004
Gilliland, Alice	NOAA Administrator's Award, outstanding dedication to developing U.S. Climate Change Science Program Synthesis & Assessment Products integrating climate research for decision support.	2008
	EPA Silver Medal, Public Health Air Surveillance Evaluation (PHASE) Team	2008
	EPA Bronze Medal, Accountability: Evaluating the Effectiveness of the NO _x State Implementation Plan (SIP) Call Program in Improving Ozone Air Quality over the Eastern U.S.	2008
	NERL Special Achievement Award, Future Issues: In recognition for contributions to the Climate Impacts on Regional Air Quality study	2007

Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Gilliland, Alice (cont'd.)	NOAA Administrator's Award and Technology Transfer Award, visionary leadership in the development of cross-agency partnerships to apply a "one atmosphere" air quality model which promotes meaningful and cost-effective national policies to protect human health and the environment.	2007
	NERL Special Achievement Award, Future Issues: In recognition for contributions to the Centers for Disease Control PHASE project	2006
	EPA Bronze Medal, The Community Multiscale Air Quality (CMAQ) Modeling Team	2005
Godowitch, James	EPA Bronze Medal, Accountability: Evaluating the effectiveness of the NO _x State Implementation Plan (SIP) Call program	2008
	EPA Bronze Medal, Community Multiscale Air Quality (CMAQ) model development team	2005
Heist, David	NERL Special Achievement Award, in recognition of a high level of commitment and dedication to insure the health and safety of NERL's Fluid Modeling Facility	2006
Hutzell, William	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) Multipollutant Model Team	2008
	ORD Special Achievement Award, Multipollutant Model Development Team	2007
	EPA Bronze Medal, The Community Multiscale Air Quality (CMAQ) Modeling Team	2006
Isakov, Vlad	EPA Bronze Medal, in recognition of the Near Roadway Research Team "for their collaborative efforts in understanding mobile source impacts in the near road environment"	2008
	EPA National Risk Management Research Laboratory (NRMRL) Cross-Organizational Teamwork Award for the Near-Road Research Team	2007
	NERL Special Achievement Award, Goal 5: Anticipate Future Environment Issues, for successfully linking the Community Multiscale Air Quality (CMAQ) modeling system with two human exposure models	2006
Luecken, Deborah	ORD Special Achievement Award, Multipollutant Model Development Team	2007
	NERL Special Achievement Award, Multipollutant Model Development Team	2007
	EPA Bronze Medal, The Community Multiscale Air Quality (CMAQ) Modeling Team	2005
Mathur, Rohit	EPA Bronze Medal, Development of the Multi-pollutant version of Community Multiscale Air Quality model (CMAQ)	2008
	NOAA Administrator's Award, Visionary leadership in development of cross-agency partnerships to apply an air quality model which promotes meaningful and cost-effective national policies to protect human health and the environment	2007
Mobley, David	EPA Scientific & Technological Achievement Award	2008

Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Mobley, David (cont'd.)	ORD Award for Exceptional/Outstanding Technical Assistance to the Regions or Program Offices	2008
	Contributor to the work of the Intergovernmental Panel on Climate Change for which they were awarded the Nobel Peace Prize	2007
	NERL Special Achievement Award, Science Integration to Solve Environmental Problems	2007
	EPA Bronze Medal, SPECIATE Emissions Team	2007
	EPA Bronze Medal, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Emission Inventory Assessment Team	2006
	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) Development Team	2005
	EPA Excellence in Response Award to 09/11/01 Attacks	2002
	EPA Gold Medal for PM _{2.5} Monitoring Program Implementation	2000
Napelenok, Sergey	1 st Place Young Researchers European Association for the Science of Air Pollution (EURASAP) Award, 29 th NATO Science for Peace and Security (SPS) International Technical Meeting on Air Pollution Modelling and its Application, Aveiro, Portugal	2007
Nolte, Christopher	NERL Goal 5 Award	2007
	EPA Superior Accomplishment Recognition Award	2004
Otte, Tanya	NOAA Cash-in-Your-Account Award	2007
	U.S. Department of Commerce Silver Medal, Air Quality Forecasting	2005
	Award of Appreciation, Community Modeling and Analysis System	2005
	EPA Bronze Medal, Community Multiscale Air Quality (CMAQ) Model Development	2004
Perry, Steven	NERL Special Achievement Award, for high level of commitment and dedication to ensure the health and safety of NERL's Fluid Modeling Facility	2006
	EPA Scientific and Technological Achievement Award (STAA), for journal article on the newly developed AgDRIFT aerial spray drift model	2003
Pierce, Thomas	ORD Award for Exceptional/Outstanding Technical Assistance to the Regions or Program Offices, National Fire Emissions Team	2008
	NOAA Administrator's Award "for visionary leadership in the development of cross-agency partnerships to apply a 'one-atmosphere' air quality model which promotes meaningful and cost-effective national policies to protect human health and the environment"	2007
	EPA Bronze Medal, "for outstanding team research achievement in the development of the Models-3 Computational Framework and the Community Multi-Scale Air Quality Modeling System"	2005
Pleim, Jonathan	NOAA Silver Medal, Air Quality Forecasting	2005
	EPA Bronze Medal, Community Multiscale Air Quality (CMAQ) Model Development	2004

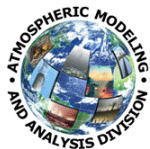


Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Pouliot, George	ORD Award for Exceptional/Outstanding Technical Assistance to the Regions or Program Offices, National Fire Emissions Team	2008
	NOAA Silver Medal, Air Quality Forecasting	2005
	EPA Bronze Award, commendable service to the Community Multiscale Air Quality model (CMAQ) team	2005
	NERL award, FY-2003 release of CMAQ	2003
	NOAA award, development and assessment of the Eta-CMAQ modeling system for providing national air quality forecasts	2003
Rao, S.T.	EPA Bronze Medal	2008
	NOAA Administrator's Award	2007
	Elected Fellow of the American Meteorological Society	2000
	Elected Fellow of the Air & Waste Management Association	1996
	Recipient of Frank A. Chambers Award of the Air & Waste Management Association	1999
Roselle, Shawn	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) Multipollutant Model Team	2008
	NERL Special Achievement Award, Goal 1: Support the Agency's Mission, Multipollutant Model Development Team	2007
	EPA Bronze Medal, CMAQ Team	2004
	EPA Bronze Medal, ORD Five-year Particulate Matter (PM) Accomplishments Team	2003
Sarwar, Golam	EPA Bronze Medal	2007
	NERL Special Achievement Award	2006
	EPA Bronze Medal	2006
Schere, Kenneth	EPA Bronze Medal, Community Multiscale Air Quality model (CMAQ) Multipollutant Model Team	2008
	NOAA Administrator's Award, visionary leadership in the development of cross-agency partnerships to apply a "one atmosphere" air quality model which promotes meaningful and cost-effective national policies to protect human health and the environment	2007
	NERL Special Achievement Award (High Performing Organization), outstanding efforts leading to annual public releases of CMAQ model	2006
	NOAA Silver Medal, building the nation's initial capability for numerical air quality forecasting	2005
	EPA Bronze Medal Honor Award, CMAQ Team participation for its exceptional achievements in developing and evaluating the nation's premier numerical air quality model that is being used by EPA, Regional Planning Organizations, States, NOAA, and others in assessing, managing, and forecasting the nation's air quality.	2005
Schwede, Donna	EPA Bronze Medal, "For informing nitrogen and mercury total maximum daily load (TMDL) assessments through access to airshed model outputs"	2008



Table 11.2: Awards and Honors		
Name	Award/Honor	Year(s)
Donna Schwede (cont'd.)	EPA Bronze Medal, "The Community Multiscale Air Quality (CMAQ) Modeling Team is recognized for the development and application of the Nation's premier numerical air quality simulation model"	2005
	EPA Bronze Medal, "The 3MRA Modeling Team is recognized for exemplary vision and partnership culminating in the Agency's first comprehensive, national-scale multimedia risk assessment system"	2005
	EPA Office of Solid Waste and Emergency Response Team Excellence Award "For outstanding documentation, briefing packages and timely responsiveness to support the Science Advisory Board review of the 3MRA model"	2004
Simon, Heather	Lymon Reese Endowed Graduate Fellowship in Engineering, University of Texas Thrust 2000	2004–2008
	Certified Engineer in Training (Texas)	2008
	National Science Foundation Graduate Research Fellow	2004–2007
	Employee of the Quarter, Texas Commission on Environmental Quality (TCEQ) Air Permits Division	2002
Swall, Jenise	EPA Bronze Medal, "Accountability: Evaluating the Effectiveness of the NO _x State Implementation Plan (SIP) Call Program in Improving Ozone Air Quality Over the Eastern U.S."	2007
Touma, Jawad	Certified Consulting Meteorologist, American Meteorological Society	1979-present
	EPA Bronze Medal, EPA Office of Air Quality Planning & Standards, Office of Transportation and Air Quality (OTAQ) Mobile Source Air Toxics (MSAT) rule team	2007
West, Jeffrey	EPA Bronze Medal, North American Consortium for Atmospheric Research in Support of Air-Quality Management (NARSTO) Emission Inventory Assessment	2006
	NERL Quality Assurance Award	2006
	EPA Bronze Medal, NARSTO Particulate Matter (PM) Science Assessment	2004
Young, Jeffrey	NOAA Silver Medal, exceptional achievement in developing, testing, and implementing national air quality forecasting in less than two years	2005
	EPA Bronze Medal, contribution to the development and application of the Nation's premier numerical air quality simulation model	2005

Table 11.3: Journal Editorial Manuscript Reviews	
Name	Journal
Appel, Wyatt	<i>Journal of the Air and Waste Management Association</i>
Bash, Jesse	<i>Atmospheric Chemistry and Physics</i>
	<i>Atmospheric Environment</i>
	<i>Biogeosciences</i>
	<i>Environmental Fluid Dynamics</i>
	<i>Environmental Management</i>
	<i>Environmental Science and Toxicology</i>
	<i>Science of the Total Environment</i>
Benjey, William	<i>Atmospheric Environment</i>
	<i>Atmospheric Environment</i>
	<i>Environmental Management</i>
	<i>Environmental Toxicology</i>
	<i>Journal of the Air and Waste Management Association</i>
	<i>Journal of Transportation</i>
	<i>Science of the Total Environment</i>
	<i>Transportation Research - Part D</i>
Bhave, Prakash	<i>Aerosol Science and Technology</i>
	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
	<i>Inhalation Toxicology</i>
	<i>Journal of Applied Meteorology and Climate</i>
	<i>Journal of Geophysical Research</i>
	<i>Journal of the Air and Waste Management Association</i>
Bullock, Russell	<i>Applied Geochemistry</i>
	<i>Atmospheric Chemistry and Physics</i>
	<i>Atmospheric Environment</i>
	<i>Ecotoxicology</i>
	<i>Environmental Fluid Mechanics</i>
	<i>Environmental Pollution</i>
	<i>Environmental Research</i>
	<i>Environmental Science and Technology</i>
	<i>Fuel Processing Technology</i>
	<i>Journal of Applied Meteorology</i>
	<i>Journal of Geophysical Research</i>
	<i>Journal of Great Lakes Research</i>
	<i>Journal of the Air and Waste Management Association</i>
	<i>Science of the Total Environment</i>

Table 11.3: Journal Editorial Manuscript Reviews	
Name	Journal
Carlton, Annmarie	<i>Aerosol Science and Technology</i>
	<i>Atmospheric Environment</i>
	<i>Atmospheric Research</i>
	<i>Environmental Science and Technology</i>
	<i>Geophysical Research Letters</i>
	<i>Journal of Atmospheric Chemistry</i>
	<i>Science of the Total Environment</i>
Ching, Jason	<i>Atmospheric Environment</i>
	<i>Boundary Layer Meteorology</i>
	<i>Bulletin of the AMS</i>
	<i>Journal of Applied Meteorology and Climate</i>
Cooter, Ellen	<i>Journal of Environmental Monitoring</i>
	<i>Aerosol and Air Quality Research</i>
	<i>Atmospheric Environment</i>
	<i>Climate Research</i>
	<i>Climatic Change</i>
	<i>Journal of Applied Meteorology and Climate</i>
	<i>Journal of Great Lakes Research</i>
	<i>Physical Geography</i>
<i>Science and the Total Environment</i>	
Dennis, Robin	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
	<i>Eos</i>
	<i>Geophysical Research Letters</i>
	<i>Journal of Applied Meteorology</i>
	<i>Journal of Geophysical Research</i>
	<i>Journal of the Air and Waste Management Association</i>
Eder, Brian	<i>Atmospheric Environment</i>
	<i>Journal of Air and Waste Management</i>
	<i>Journal of Applied Meteorology</i>
	<i>Journal of Environmental Management</i>
	<i>Journal of Geophysical Research</i>
	<i>National Weather Digest</i>
	<i>Science of the Total Environment</i>
	<i>Water, Air and Soil Pollution</i>
	<i>Weather and Forecasting</i>

Table 11.3: Journal Editorial Manuscript Reviews	
Name	Journal
Foley, Kristen	<i>Atmospheric Environment</i>
	<i>Journal of Geophysical Research – Atmospheres</i>
Gilliam, Robert	<i>Journal of Applied Meteorology and Climate</i>
Gilliland, Alice	<i>Atmospheric Chemistry and Physics</i>
	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
	<i>Journal of Climate and Applied Meteorology</i>
	<i>Journal of Geophysical Research – Atmospheres</i>
	<i>Journal of the Air & Waste Management Association</i>
Godowitch, James	<i>Air Quality, Atmosphere and Health</i>
	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
Heist, David	<i>Aerosol Science and Technology</i>
	<i>Environmental Fluid Mechanics</i>
Herwehe, Jerold	<i>Atmospheric Environment</i>
	<i>Environmental Fluid Mechanics</i>
	<i>Geophysical Research Letters</i>
Howard, Steven	<i>Atmospheric Environment</i>
	<i>Journal of Applied Meteorology and Climatology</i>
	<i>Journal of Geophysical Research – Atmospheres</i>
Hutzell, William	<i>Environmental Pollution</i>
	<i>Journal of Air and Waste Management Association</i>
	<i>Journal of Environment Management</i>
Isakov, Vlad	<i>Atmospheric Environment</i>
	<i>Chemosphere</i>
	<i>Environmental Health Perspectives</i>
	<i>Environmental Science and Technology</i>
	<i>Journal of Environmental Management</i>
	<i>Journal of the Air and Waste Management Association</i>
Luecken, Deborah	<i>Atmospheric Environment</i>
Mathur, Rohit	<i>Atmospheric Chemistry and Physics</i>
	<i>Atmospheric Environment</i>
	<i>Chemosphere</i>
	<i>Computers and Chemical Engineering</i>
	<i>EM Magazine of the Air and Waste Management Association</i>
	<i>Environmental Fluid Mechanics</i>
	<i>Environmental Science and Technology</i>

Table 11.3: Journal Editorial Manuscript Reviews	
Name	Journal
Mathur, Rohit (cont'd.)	<i>Journal of Applied Meteorology and Climatology</i>
	<i>Journal of Computing in Civil Engineering</i>
	<i>Journal of Environmental Management</i>
	<i>Journal of Geophysical Research</i>
	<i>Journal of the Air and Waste Management Association</i>
	<i>Theoretical and Applied Climatology</i>
Mobley, David	<i>EM Magazine of the Air and Waste Management Association</i>
	<i>Environmental Modelling and Software</i>
	<i>Environmental Science and Technology</i>
	<i>Journal of the Air and Waste Management Association</i>
Napelenok, Sergey	<i>Environmental Science and Technology</i>
	<i>Journal of Geophysical Research</i>
Nolte, Christopher	<i>Atmospheric Environment</i>
	<i>Atmospheric Research</i>
	<i>Environmental Science and Technology</i>
Otte, Tanya	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
	<i>Geophysical Research Letters</i>
	<i>Journal of Applied Meteorology</i>
	<i>Weather and Forecasting</i>
Perry, Steven	<i>Atmospheric Environment</i>
	<i>Journal of Applied Meteorology</i>
Pierce, Thomas	<i>Atmospheric Environment</i>
	<i>EM Magazine of the Air and Waste Management Association</i>
	<i>Environmental Science and Technology</i>
	<i>International Journal of Wildland Fire</i>
	<i>Journal of Applied Meteorology and Climatology</i>
	<i>Journal of Environmental Management</i>
	<i>Journal of Geophysical Research</i>
	<i>Journal of the Air and Waste Management Association</i>
<i>Journal of Geophysical Research</i>	
Pinder, Robert	<i>Atmospheric Environment</i>
	<i>Environmental Science and Technology</i>
	<i>Geophysical Research Letters</i>
	<i>Journal of Geophysical Research</i>
Pleim, Jonathan	<i>Atmospheric Environment</i>
	<i>Environmental Fluid Mechanics</i>
	<i>Geophysical Research Letters</i>

Table 11.3: Journal Editorial Manuscript Reviews	
Name	Journal
Pleim, Jonathan (cont'd.)	<i>Journal of Applied Meteorology and Climate</i>
	<i>Journal of Geophysical Research</i>
	<i>Monthly Weather Review</i>
Pouliot, George	<i>Environmental Management</i>
	<i>Environmental Science and Technology</i>
	<i>Journal of the Air and Waste Management Association</i>
	<i>Weather and Forecasting</i>
Rao, S.T.	<i>Atmospheric Environment</i>
	<i>EM Magazine</i>
	<i>Environmental Pollution</i>
	<i>Environmental Science & Technology</i>
	<i>Journal of Applied Meteorology and Climate</i>
	<i>Journal of Atmospheric Physics and Chemistry</i>
	<i>Journal of Geophysical Research - Atmospheres</i>
	<i>Journal of the Air and Waste Management Association</i>
Roselle, Shawn	<i>Journal of Applied Meteorology and Climate</i>
Sarwar, Golam	<i>Environmental Progress</i>
	<i>Indoor Air</i>
	<i>International Journal of Environment and Pollution</i>
	<i>Natural Sciences & Engineering Research Council of Canada</i>
Schere, Kenneth	<i>Atmospheric Environment</i>
	<i>Environmental Fluid Mechanics</i>
	<i>Environmental Science and Technology</i>
	<i>Journal of Applied Meteorology and Climate</i>
	<i>Journal of Geophysical Research - Atmospheres</i>
	<i>Journal of the Air and Waste Management Association</i>
Schwede, Donna	<i>Aerosol and Air-Quality Research</i>
	<i>Geochemistry Exploration, Environment and Analysis</i>
Streicher, John	<i>Applied Optics</i>
	<i>Journal of the Air & Waste Management Association</i>
	<i>Photochemistry and Photobiology</i>
Swall, Jenise	<i>Atmospheric Environment</i>
	<i>Ecology</i>
	<i>Journal of Environmental Management</i>
	<i>Journal of the American Statistical Association</i>
Wong, David	<i>Environmental Modelling and Software</i>
	<i>Journal of the Air and Waste Management Association</i>

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Bash, Jesse	EPA National Risk Management Research Laboratory	Ammonia flux measurements and modeling	In-kind collaboration on a USDA grant	2007–present
	National Center for Atmospheric Research	Modeling forest fire mercury emissions	In-kind modeling support	2007–2008
	NOAA Air Resources Laboratory	Terrestrial mercury flux measurements	In-kind collaboration	2009
	University of Connecticut Marine Chemistry Department	Estuarine mercury flux measurements	In-kind collaboration on a NOAA grant	2007–present
	University of Maryland Appalachian Laboratories	Terrestrial mercury flux measurements and modeling	In-kind modeling and flux instrumentation design	2008–present
Benjey, William	University of North Carolina's Carolina Environmental Program	Development of a Community Modeling and Analysis Center for Air Quality	Cooperative research agreement	2001–2005
Bhave, Prakash	National Research Council	Modeling the Fate and Transport of Engineered Nanomaterials in the Atmosphere	Cooperative agreement	2008–present
	University of North Carolina at Chapel Hill	Development of a Chemically-Active Coarse Particulate Matter (PM) Mode in the Community Multiscale Air Quality model (CMAQ)	Cooperative agreement	2003–2005
Bullock, Russell	Atmospheric and Environmental Research, Inc.	North American Mercury Model Intercomparison Study (NAMMIS)	Letter of agreement (support from EPRI)	2004–2008
	Environment Canada	North American Mercury Model Intercomparison Study (NAMMIS)	Letter of agreement	2004–2008
	EPA Office of Air Quality Planning and Standards	North American Mercury Model Intercomparison Study (NAMMIS)	In-kind collaboration	2004–2008
	EPA Office of Water	North American Mercury Model Intercomparison Study (NAMMIS)	In-kind collaboration	2004–2008
	Harvard University	North American Mercury Model Intercomparison Study (NAMMIS)	Letter of agreement	2004–2008
	ICF International	North American Mercury Model Intercomparison Study (NAMMIS)	Under contract to EPA Office of Water	2004–2008

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Bullock, Russell (Cont'd.)	New York State Department of Environmental Conservation	North American Mercury Model Intercomparison Study (NAMMIS)	Cooperative agreement	2004– 2008
Carlton, Anmarie	Rutgers University	Cloud chemistry	EPA Science to Achieve Results (STAR) coop- erative agree- ment	2007– 2010
	University of North Carolina at Chapel Hill	Morphocule approach for secondary organic aerosols (SOA) modeling	Student services	2008– 2009
Ching, Jason	Altostratus, Inc.	Urbanized MM5 and urban heat island studies	Advanced Monitoring Initiative	2004– 2008
	Arizona State University	Urbanized Fifth Generation of the Penn State/UCAR Mesoscale Model (MM5) applied to Phoenix	Advanced Monitoring Initiative	2004– 2008
	Baylor College of Medicine	Relating modeling air pollution hot spots to geospatial hospital admissions	Project advisor	2004– 2008
	Center for Integrating Statistical and Environmental Sciences	Statistical aspects of fine-scale modeling	EPA grant	2004– 2007
	Defense Threat Reduction Agency	Cosponsor of National Urban Database and Access Portal Tool	Advanced Monitoring Initiative	2004– 2008
	Delaware Department of natural Resources and Environmental Control	Development of sub-grid modeling techniques for human exposure applications	Memo of collaboration	2004– 2008
	EPA Region 3	Urban air toxics	Memo of collaboration	2004– 2008
	European Cooperation in Science and Technology-728 "Enhancing mesoscale meteorological modeling capabilities for air pollution and dispersion modeling" (COST 728)	Issues on urban meteorology and air quality models	In-kind collaboration	2007– 2008
	Los Alamos National Laboratory	Urban morphology and urban day-night population database	Advanced Monitoring Initiative	2004– 2008



Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Ching, Jason (cont'd.)	National Center for Atmospheric Research	Development of urban canopy parameters for Weather Research and Forecasting (WRF) Model and NUDAPT	Advanced Monitoring Initiative	2004–2008
	San Jose State University	Urbanizing MM5	Advanced Monitoring Initiative	2004–2008
	University of Houston, Institute for Multidimensional Air Quality Studies (UH IMACS)	Fine-scale and air toxics modeling application studies in Houston	EPA contract to University of Houston	2004–2008
	University of North Carolina's Institute for the Environment	Fine-scale and urban modeling studies using National Urban Database and Access Portal Tool	EPA in-house CMAS support contract	2004–2008
	University of Utah	Development of urban canopy parameters for MM5 and NUDAPT	Advanced Monitoring Initiative	2004–2008
Dennis, Robin	Battelle Memorial Institute	Model Evaluation Toolkit	Contract	2004–2006
	Chesapeake Bay Program	Assist restoration: air deposition	In-kind collaboration & contract (to us)	1994–present
	Cornell University	Nitrogen air-watershed link	In-kind collaboration	2008-present
	Environment Canada	U.S.-Canada Accord	In-kind collaboration	1994-present
	EPA National Exposure Research Laboratory / Ecosystems Research Division	Air-water linkage	In-kind collaboration	2006-present
	EPA National Health and Environmental Effects Research Laboratory / Gulf Breeze & Grosse Ile	Gulf of Mexico Agreement	In-kind collaboration	2006-present
	EPA National Health and Environmental Effects Research Laboratory and National Exposure Research Laboratory	National Nitrogen Team of Ecosystem Services Program	In-kind collaboration	2007-present

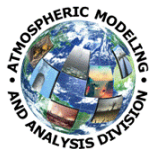


Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Dennis, Robin (cont'd.)	EPA National Risk Management Research Laboratory and National Exposure Research Laboratory	Ammonia deposition and budgets	In-kind collaboration	2007-present
	EPA Office of Air Resources / Office of Atmospheric Programs / Clean Air Markets Division	Critical loads pilot studies	In-kind collaboration	2006-present
	EPA Science Advisory Board Integrated Nitrogen Committee	Nitrogen deposition and nitrogen budgets	In-kind collaboration	2007-present
	National Acid Deposition Program	Multi-Agency Ad Hoc Critical Loads Group	In-kind collaboration	2006-present
	National Park Service	Shenandoah Assessment: air deposition & concentration	In-kind collaboration & contract (to us)	2001-2003, 2007-2008
	North Carolina State University	Mentor to student on nitrogen budget research	Contract	2008-present
	Tampa Bay Estuary Program	Assist total maximum daily load (TMDL): air deposition	In-kind collaboration	2003-present
	University of California, Davis	Develop sea salt module for the Community Multiscale Air Quality model (CMAQ)	Graduate assistantship	2002-2003
Eder, Brian	NOAA, National Weather Service	Develop an evaluation protocol and apply to the National Air Quality Forecast Model	Memo of agreement	2003-2008
Garcia, Valerie	New York State Department of Health	Provide air quality data for epidemiology studies	Advanced Monitoring Initiative	2007-2008
	Sandia National Labs	Optimize Community Multiscale Air Quality model (CMAQ) performance	Interagency Agreement	2005
Gilliland, Alice	Carnegie Mellon University	Collaboration on climate and air quality studies	EPA Science to Achieve Results (STAR) cooperative agreement	2003-2007
	New York Department of Environmental Conservation (NYDEC)	Establish a near real-time air quality forecasting at NYDEC	NERL/AMAD cooperative agreement	2004-present

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Gilliland, Alice (cont'd.)	NOAA Geophysical Fluid Dynamics Laboratory and NASA Goddard Institute for Space Studies	Climate Change Science Program (CCSP) Synthesis and Assessment Product 3.2: Assessing the impact of short-lived species on climate change	In-kind collaboration	2007–2008
	SUNY Albany, University of Idaho	Study of the NO _x State Implementation Plan (SIP) Call impact on air quality	Oak Ridge Institute for Science and Education (ORISE) visiting scientists agreements	2004–2008
Godowitch, James	NOAA Air Resources Laboratory	Develop interface software linking the Community Multiscale Air Quality model (CMAQ)/HYbrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) modeling systems	NERL funds	2006
Heist, David	DHS Environmental Measurements Laboratory, NOAA Air Resources Laboratory, DOE Los Alamos National Laboratory	Urban Dispersion Program	In-kind collaboration	2004–2006
	DOD Defense Advanced Research Projects Agency	Project Pentagon Shield: Wind Tunnel Study of Flow and Dispersion	Interagency Agreement	2004
	NOAA Air Resources Laboratory	Tracer Experiment on the Effect of Noise Barriers on Near-Road Dispersion	Interagency Agreement	2008
Herwehe, Jerold	NOAA National Weather Service	Develop and implement daily operational national air quality forecasting guidance capability	Memo of understanding	2005–2008
	USDA Forest Service	Development of a resolved forest canopy submodel within a large-eddy simulation model to investigate fire-atmosphere interaction	Interagency Agreement (between NOAA and USDA Forest Service)	2003–2005
Hutzell, William	University of North Carolina's Institute for the Environment	Assess Impact of Airport Emissions on Air Toxics Concentrations	In-kind collaboration	2008
Isakov, Vlad	Emory University	Serve as a liaison between EPA/NERL and Emory for the "Air Pollution Exposure and Health" research project	EPA/NERL cooperative agreement	2008–2010

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Luecken, Deborah	Environ Corporation	Develop new chemical mechanism	Contract	2004–2005
	EPA Region 3	Community of Practice study	Grant	2007–present
	EPA Region 3	Multipollutant studies in Philadelphia	Grant	2005–2006
	University of California, Riverside	Use smog chamber studies to analyze chemical mechanisms	Grant	2000–2006
Mathur, Rohit	NOAA National Weather Service	Development of a National Air Quality Forecasting Modeling System	Memo of understanding	2004–2008
Mobley, David	NASA Marshall Space Flight Center University of Alabama in Huntsville	Use of satellite information for improvement of air quality modeling systems	Interagency agreement	2006–present
	NOAA/Air Resources Laboratory	Air quality research on mercury	Interagency agreement	2002–2004
	NARSTO	Air quality research	Interagency agreement	2002–present
Napelenok, Sergey	Dalhousie University	Inverse modeling	In-kind collaboration	2007–2008
	EPA Human Exposure and Atmospheric Science Division	Secondary organic aerosols (SOA) modeling	In-kind collaboration	2007–present
	EPA National Center for Environmental Assessment	PM _{2.5} assessment	In-kind collaboration	2008-present
	Georgia Institute of Technology	Instrumented models	In-kind collaboration	2006–present
	University of Colorado, Boulder	Instrumented models	In-kind collaboration	2008-present
Nolte, Christopher	Carnegie Mellon University	Global climate and aerosol modeling	Cooperative agreement	2005–2008
	Harvard University	Global climate and chemistry modeling	cooperative agreement	2005–2008
	SUNY Albany	Evaluation and analysis of Community Multiscale Air Quality (CMAQ) model output under current climate	Oak Ridge Institute for Science and Education (ORISE) visiting scientist	2006–2008
	University of California, Davis	Aerosol modeling	Cooperative agreement	2004–2008

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Otte, Tanya	NOAA, National Weather Service	Develop national air quality forecasting capability	Memo of understanding	2002–2008
	Penn State and National Center for Atmospheric Research	Develop Weather Research and Forecasting (WRF) Model nudging capability	In-kind collaboration	2005–present
Perry, Steven	DHS Environmental Measurements Laboratory, NOAA Air Resources Laboratory, DOE Las Alamos National Laboratory	Urban Dispersion Program	In-kind collaboration	2004–2006
	DOD Defense Advanced Research Projects Agency	Pentagon Shield Program: Wind tunnel study of flow and dispersion around Pentagon building	Interagency agreement	2004
	EPA Office of Pesticide Programs	Spray Drift Task Force – Development of AgDrift model	Cooperative Research and Development Agreement	2004–2006
	NOAA Air Resources Laboratory	Field study of dispersion near roadways	Interagency agreement	2008
Pierce, Thomas	NOAA Field Research Division	Tracer study of dispersion downwind of a roadside barrier	Interagency Agreement	2008
Pleim, Jonathan	NASA Marshall Space Flight Center University of Alabama in Huntsville	Use of satellite information for improvement of air quality modeling systems	Interagency agreement	2007–2009
	Penn State University, EPA Region 10	Modeling of the stable planetary boundary layer in winter (Fairbanks, AK)	EPA contract	2008–present
	Texas Environmental Research Consortium Texas A&M University	Data assimilation for parameter estimation for vertical mixing in meteorological models	In-kind collaboration	2008–present
Pouliot, George	NOAA National Weather Service	Develop an Air Quality Forecast Capability	EPA/NOAA partnership	2003–2008
	University of North Carolina's Institute for the Environment	Community Modeling and Analysis Center, technical consultant	Cooperative agreement	2003–2008
	USDA Forest Service	Integrate BlueSky Framework with the Sparse Matrix Operational Kernel Emissions (SMOKE) modeling system	Interagency agreement	2004–2005
Rao, S.T.	Air Force Technical Analysis Center	Spectral Decomposition Techniques for the Analysis of Air Quality Data	Interagency agreement	2005–2008

Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Rao, S.T. (cont'd.)	Columbia University	Linking Air Quality and Human Health	Grant (NOAA and NASA)	2005–present
	Joint Research Center, Ispra, Italy, European Union	Air quality model evaluation	Letter of agreement	2008–present
	United Kingdom Environmental Agency and Department for Environment, Food, and Rural Affairs, London, England	Air quality modeling and its applications	Letter of agreement	2008–present
Roselle, Shawn	NASA Langley Research Center	Monitoring and Modeling of Ozone Pollution Episodes from Satellites	Interagency agreement	1998–2004
Sarwar, Golam	North Carolina State University	Impact of gas-phase chemical mechanisms on air quality	Letter of understanding	2008
	Universitat Karlsruhe, Germany	Improvement of nitrous acid (HONO) chemistry	Letter of understanding	2007
Schere, Kenneth	Baron Advanced Meteorological Systems	Linking Sparse Matrix Operator Kernel Emissions (SMOKE) emissions model to CMAQ air quality model	NOAA contract	2004–2006
	Georgia Institute of Technology	Refine aerosol thermodynamic module for CMAQ particulate matter (PM) modeling	NOAA contract	2006–2008
	National Center for Atmospheric Research	Collaboration in meteorology and air quality model development	EPA cooperative agreement	2003–2005
	North Carolina State University	Cooperative research in air quality modeling	NOAA cooperative agreement	2005–2008
	Penn State University	Four-dimensional data assimilation in Weather Research and Forecasting (WRF) Model	EPA contract	2005–2007
	Penn State University, EPA Region 10	Modeling of the stable planetary boundary layer in winter (Fairbanks, AK)	EPA contract	2008–present
	Sierra Research, EPA Region 10, Alaska Dept. of Environmental Conservation	High-resolution emissions inventory for air quality modeling (Fairbanks, AK)	EPA contract	2008–present
	Stanford University	Develop efficient condensation code for PM air quality modeling	NOAA contract	2006



Table 11.4: Collaborative Research Activities				
Name	Institution	Purpose	Vehicle	Year(s)
Schere, Kenneth (cont'd.)	University of Houston	Develop E-grid version of CMAQ model for air quality forecasting	NOAA contract	2006–2008
	University of North Carolina's Institute for the Environment	Develop concurrent variable-grid nesting for Community Multiscale Air Quality model (CMAQ)	EPA contract	2008–present
	University of North Carolina's Institute for the Environment	Develop hemispheric version of the CMAQ model	EPA contract	2008–present
Schwede, Donna	Argonne National Laboratory	Advanced Computer R&D to Support the Use of the Dynamic Information Architecture System (DIAS) in the EPA's Multimedia Integrated Modeling System (MIMS)	Interagency agreement	2001–2007
	Argonne National Laboratory	Enhancements to the Watershed Deposition Tool and Visualization for Rich Data Interpretation	Interagency agreement	2008–2009
	NASA, Goddard Space Flight Center, Hydrological Sciences Branch	High Resolution Modeling of Land-Atmosphere Ammonia Exchange	Interagency agreement	2003–2006
Streicher, John	North Carolina State University	Software Development	In-kind collaboration	2003–2009
Young, Jeffrey	Sandia National Laboratory	Optimizing Parallel I/O in the Community Multiscale Air Quality model (CMAQ)	Interagency agreement	2006–2007
	Sandia National Laboratory	Optimizing CMAQ code to Improve Run Time	Interagency agreement	2003–2006



EUROPEAN COMMISSION
RESEARCH DIRECTORATE-GENERAL

Directorate I - Environment

22. 10. 2008

Brussels,
RTD I.5/PT/fd D(2008) 569553

Mr Keith Puckett, Ph.D.
Director
Air Quality Research Division
Environment Canada
Toronto, Ontario, M3H 5T4
Canada

S.T. Rao, Ph.D.
Director
Atmospheric Modeling Division
U.S. Environmental Protection Agency
Research Triangle Park, NC
USA

Dear Mr Puckett and Mr Rao,

Thank you for your letter dated 6 June 2008 regarding international coordination of air quality modelling research across the Atlantic. We welcome the international initiative on Air Quality Model Evaluation (AQMEII) which has been suggested by both European and US scientist in a meeting held on 3-4 April in Utrecht in the Netherlands. The outcomes of the recent meeting held in Ispra on 18-19 September has confirmed our resolve, and as you are probably already aware the Joint Research Centre (JRC) has confirmed the organisation and the sponsorship of the Workshop to be held in Europe in the first half of 2009. The DG Research as well as DG Environment would be interested in participating in the workshop to provide a European perspective on the policy issues involved.

We also welcome the idea of a possible collaborative study for applying current regional air quality models to Europe and North America and identifying the strengths and limitations of current models. We consider air quality as an important research area also in the context of climate change. The topic of air quality modelling would be a natural follow-up to some existing Framework projects such as ACCENT¹, a research network focusing on atmospheric composition change.

¹ <http://www.accent-network.org/>

Two new projects² funded by the European Community which include air quality modelling activities will be launched in the coming weeks. DG Research can help in facilitating the involvement of the respective team involved in these projects in the AQMEII cooperation.

With regard to possibilities within the existing S&T Cooperation Agreement between the EC and Canada or Implementing arrangement with the US Environmental Protection Agency, the inclusion of air quality modelling can be explored as possible future activities within our research policy dialogue.

We wish to thank you for your initiative and look forward to working with you and having the scientists further cooperating on this important environmental issue.

Sincerely,



Manuela SOARES

Director
Directorate Environment
DG Research



Jos DELBEKE

Director General
Directorate General Environment
DG Environment

CC: Roland SCHENKEL, Director General DG JRC

² MEGAPOLI and CITYZEN