

CURRICULUM VITAE

of

ROBERT TALBOT

Institute for Climate and Atmospheric Science
Department of Earth & Atmospheric Sciences
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EDUCATION

- 1977-1981 Graduate studies in atmospheric chemistry (Profs. A. W. Andren and D. E. Armstrong), air-sea exchange (Prof. T. Green.), geochemistry (Prof. C. J. Bowser), and soil chemistry (Prof. G. C. Chesters). Additional studies in analytical chemistry, atmospheric sciences, and applied statistics.
University of Wisconsin-Madison.
Ph.D. in Atmospheric Chemistry, 1981.
Thesis: *Atmospheric fluxes and geochemistries of stable Pb, Pb-210, and Po-210 in Crystal Lake, Wisconsin.*
Advisor: A. W. Andren
- 1975-1977 Graduate studies in atmospheric science, physical chemistry, and statistics at the University of Wisconsin-Madison.
M.S. in Atmospheric Chemistry, 1977.
Thesis: *Heterogeneous equilibria in a fly ash pond.*
Advisor: M. A. Anderson.
- 1971-1975 Undergraduate studies; mathematics and sciences major with marine chemistry and biology electives at Florida Institute of Technology.
B.S. in Oceanography, 1975.
Senior thesis: *The extraction of organic compounds from marine sediments.*
Advisor: J. Gilio.

PRINCIPAL RESEARCH AREAS

- Sources, sinks, and chemical cycling of atmospheric mercury on regional-to-global scales.
- Source strengths of the greenhouse gases CO₂ and CH₄ from oil and natural gas processing and their distribution systems.
- Air quality – climate interactions.
- Inter-continental transport of air pollutants.
- Biosphere-atmosphere exchange of trace gases.
- Development of advanced instrumentation for the measurement of reactive trace gases and aerosols in the troposphere at low part per trillion/quadrillion abundances (ground, aircraft, and balloon based instrument suites).

ACADEMIC AND RESEARCH EXCELLENCE

My Ph.D. student Xin Lan was awarded a College of Natural Science and Mathematics \$5,000 scholarship for 2013-2014.

My Ph.D. student Dara Feddersen was awarded the DeBeers best student paper at the 10th International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.

Group Achievement Award for the ARCTAS Field Campaign, National Aeronautics and Space Administration, 2009.

Included in American Men and Women of Science, the premier biographical reference on North American scientists, June 2009.

Group Achievement Award for the INTEX-B/MILAGRO Field Campaign, National Aeronautics and Space Administration, 2006.

My Targeted Wind Sensing program published a key paper in the Bulletin of the American Meteorological Society (BAMS) and a photograph of the Smart Balloon in action made the cover for the November 2006 issue (Vol. 87, No. 11).

My Targeted Wind Sensing program during TexAQS II made the Top Story on NOAA homepage, September 26, 2006; *SMART” BALLOONS CARRYING UNH-BUILT OZONE INSTRUMENT PROBE GULF OF MEXICO AIR* (<http://www.noaanews.noaa.gov/stories2006/s2707.htm>).

Co-author of *Ozone, aerosol, potential vorticity, and trace gas trends observed at high-latitudes over North America from February to May 2000* selected as 2005 Outstanding Atmospheric Science

Paper at the NASA Langley Research Center, Hampton, VA.

Group Achievement Award for the INTEX-NA Airborne Expedition, National Aeronautics and Space Administration, 2005.

Selected for inclusion in AcademicKeys Who's Who in Sciences Higher Education (WWSHE), 2004-present.

ISI Highly Cited, Institute for Scientific Information, Top 0.5% of researchers in Geosciences for citations to my work, 2000.

Group Achievement Award for the SONEX airborne expedition, National Aeronautics and Space Administration, 1998.

My Ph.D. student Barry Lefer was awarded the best student paper in atmospheric sciences at the AGU Spring Meeting, Baltimore, MD, 1996.

Group Achievement Award for the GTE/PEM-West A & B airborne expeditions, National Aeronautics and Space Administration, 1995.

Group Achievement Award for the GTE/ABLE – 3A and B airborne expeditions, National Aeronautics and Space Administration, 1993.

National Academy of Sciences/National Research Council Postdoctoral Fellowship in atmospheric sciences, 1983-1985.

NSF Postdoctoral Fellowship in environmental chemistry, 1981-1983.

Elected member of Sigma Xi, The Scientific Research Society, University of Wisconsin Chapter, April 13, 1981.

Two undergraduate study scholarships from the Noyes Foundation, 1973-1975.

B.S. with high honors in oceanography, 1975.

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science.
American Geophysical Union

PROFESSIONAL EXPERIENCE

- 2011-present Adjunct Professor of Atmospheric Chemistry, School of Atmospheric Science, Nanjing University, Nanjing, China.
- 2011-present Director, Institute for Climate and Atmospheric Science, University of Houston, Houston, TX.
- 2011-present Professor of Atmospheric Chemistry, Department of Earth & Atmospheric Sciences, University of Houston, Houston, TX.
- 2000-2011 Director, NOAA AIRMAP Cooperative Institute, Institute for the Study of Earth, Oceans, and Space, University of New Hampshire.
- 1999-2011 Director, Climate Change Research Center (CCRC), Institute for the Study of Earth, Oceans, and Space, University of New Hampshire.
- 1997-2011 Research Professor, Institute for the Study of Earth, Oceans and Space/Department of Earth Sciences, Climate Change Research Center, University of New Hampshire.
- 1991-1997 Research Associate Professor, Institute for the Study of Earth, Oceans and Space/Department of Earth Sciences, Complex Systems Research Center, University of New Hampshire.
- 1988-1991 Research Assistant Professor, Institute for the Study of Earth, Oceans and Space/Department of Earth Sciences, Complex Systems Research Center, University of New Hampshire.
- 1985-1988 Senior Research Associate in Atmospheric Sciences at the NASA Langley Research Center, Atmospheric Sciences Division, Hampton, Virginia.
- 1983-1985 National Research Council Postdoctoral Research Associate in Atmospheric Sciences Division, NASA Langley Research Center, Hampton, Virginia.
- 1982-1983 Research Associate/Assistant Professor, Department of Environmental Systems Engineering-Environmental Chemistry Program, Clemson University.
- 1981-1982 Research Associate, Department of Environmental Systems Engineering-Environmental Chemistry Program, Clemson University.
- 1975-1981 Research Assistant, Water Chemistry Program, University of Wisconsin-Madison.
- 1973-1975 Laboratory Assistant, Department of Chemistry, Florida Institute of Technology.

PROFESSIONAL ACTIVITIES (recent)

- Session Chair – Potential Controls on Trends in Background Concentrations of Hg⁰ in the Northeast, 4th International Conference on Earth Science & Climate Change, San Francisco, CA, July 2014.
- Member Editorial Board 2012-present, American Journal of Climate Change.
- Member Editorial Board 2013-present, Journal of Advance Research in Meteorological Sciences.
- Vice Chair, Institute for Climate and Global Change Research, School of Atmospheric Science, Nanjing University, Nanjing, China.
- Guest editor of special issue of Atmosphere, *Atmospheric Mercury*.
- Nominator, 2010 (26th) Japan Prize, Science and Technology Foundation of Japan.
- Member Editorial Board 2009-present, Atmosphere, Molecular Diversity Preservation International, <http://www.mdpi.com/journal/atmosphere/>
- Member Editorial Board 2009 – present, Central European Journal of Geosciences (CEJG) <http://www.versita.com/science/geosciences/cejg/>
- Member Advisory Board, Scholarly Research Board, <http://www.syrexe.com/>
- Press Conference at Thompson Farm with Senator Judd Gregg, ribbon cutting for new atmospheric observatory, August 11, 2008.
- Live Radio interview on *The Breakfast Club*, the flagship morning discussion program in Jamaica with hosts Eric Anthony Abrahams (former Minister of Tourism) and Trevor Munroe (Retired Professor of Political Scientist). R. Talbot and H. Mao interview concerning air quality and the Beijing 2008 Summer Olympics, July 2008.
- Nominator, 2009 (25th) Japan Prize, Science and Technology Foundation of Japan.
- Member, Advisory Board 2008 - present, Scholarly Research Exchange, Hindawi Publishing Corporation.
- Evaluator, Natural Environment Research Council of the UK, Consortium Grants (2007).
- Evaluator, The State Natural Science Award, P. R. China (2007).

- Evaluator, MacArthur Fellowship Program (2007).
- External Evaluator, for Department of Chemistry, University of California, Irvine, California 92697, January 2007.
- External Evaluator, for Department of Chemistry, University of California, Irvine, California 92697, May 2007.
- External Evaluator, for Department of Geosciences, University of Houston, Houston, TX 77204-5007, October 2006.
- Member, U. S. Environmental Protection Agency/University of Houston External Advisory Board for Texas Air Quality Study (TexAQS-II) (2006-present).
- Press conference at Pac Monadnock with Governor John Lynch on July 13, 2006. Announced joint partnership between UNH and NH Department of Environmental Services for air quality monitoring at Pac Monadnock State Park. This site is part of the AIRMAP Network. We are also involved with the State of NH in air quality monitoring on the Summit of Mount Washington.
- Inamori Foundation Nominating Committee for 2007 Kyoto Prize in Basic Sciences – Earth and Planetary Sciences, Kyoto, Japan 600-8411. (Prize is US\$450,000), August 2006.
- Reviewer for Postdoctoral Fellowship proposals/applications for the Embark Initiative, the national scholarship program of the Department of Education and Science, operated by the Irish Research Council for Science, Engineering and Technology (IRCSET), Dublin, Ireland, April 2006.
- Chairman, Membership Committee, University Corporation for Atmospheric Research, NSF/National Center for Atmospheric Research, Boulder, CO (2003 - 2006).
- UNH Members' Representative (together with Professor Huiting Mao) to the University Corporation for Atmospheric Research, NSF/National Center for Atmospheric Research, Boulder, CO (1995 – present).
- Convener, International Consortium for Atmospheric Research on Transport and Transformation Data Analysis Workshop, University of New Hampshire, August 8 -12, 2005 (200 scientists & NOAA/NASA/NSF program managers attended).
- Co-Chair *Surface Networks* component of International Consortium for Atmospheric Research on Transport and Transformation field campaign, 2004-2006.
- Speaker representing AIRMAP and UNH at press conference at NOAA ship Ronald Brown (Portsmouth, NH) with Senator Judd Gregg and Conrad Lautenbacher, Jr. (Under Secretary of

Commerce for Oceans and Atmosphere), July 2004.

- Organizer and guest lecturer, Seacoast Science Center public lecture series for the ICARTT 2004 Field Campaign during July-August 2004.
- Co-Organizer (with Barbara Hopkins) AIRMAP High/Middle School science teacher workshop at UNH during the ICARTT 2004 field campaign. This was a component of *The Joan and James Leitzel Center for Mathematics, Science, and Engineering Education* at UNH (<http://leitzelcenter.unh.edu/>).
- Presiding (with T. Bates), 2002 New England Air Quality Study III and IV, AGU Fall Meeting, San Francisco, CA, December 2003.
- Co-convener (with E. Williams, T. Bates), Special Session on New England Air Quality Study, AGU Fall Meeting, San Francisco, CA, December 2003.
- Speaker at Mount Washington Observatory spring fundraiser event with Columbia astronaut Dr. Jay Buckley, Jr. (April 2003).
- Speaker representing AIRMAP and UNH at press conference at NOAA ship Ronald Brown (Portsmouth, NH) Senator Judd Gregg and UNH President Ann Weaver Hart, July 2002.
- Participated on experts' panel on New Technologies in Environmental Work, New England Board of Higher Education. Focus was to recruit new students into scientific careers (August 2002).
- Speaker representing AIRMAP and UNH at press conference at Castle Springs (Moultonborough, NH) with Senator Judd Gregg, August 2001.
- Review proposals (about 25 per year) for National Aeronautics and Space Administration (Earth Systems Science), the National Science Foundation (Atmospheric, Climate Change, Earth Sciences, Engineering, and Polar programs), the National Oceanographic and Atmospheric Administration (Global Change Program), the Department of Energy (Global Change Program), the Environmental Protection Agency, and the National Environmental Research Council (NERC) of the UK.
- Review manuscripts (about 20 per year) for Science, Nature, Journal of Geophysical Research - Atmospheres, Geophysical Research Letters, Journal of Atmospheric Chemistry, Atmospheric Environment, Analytical Chemistry, Environmental Science and Technology, Analytical Chemistry, Earth and Planetary Science Letters, and Global Biogeochemical Cycles.
- Media outreach: Hosted film crew and interviewed for special feature on McNeil – Lehrer News Hour, numerous interviews on live radio in NH and MA (Boston), PBS radio and TV, and newspapers (including The New York Times, The Boston Globe, The UNH Alumni Magazine).

- My work has been featured on the UNH main web page numerous times, including conversations with NH senator Judd Gregg.
- Science and Content Advisor for Maine Public Television on their regional science series (*QUEST*) sponsored by NSF.
- I work with the Northeast Legislative Leaders/Constitutional Officers/Northeast Toll Fellows on public policy perspectives of environmental issues.
- I have lectured several times at Meet the Scientist's Meetings for New England Science Center representatives and docents.

COMMITTEES AND PANELS

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| 2014 | Technical Advisory Panel, Measurement of Fugitive Methane Emissions from Oil Well Activities, Environmental Defense Fund. |
| 2014 | Scientific Advisory Panel, Fugitive Emissions of Methane from Transmission and Storage of Natural Gas, Colorado State University. |
| 2009 | Panel Member, EPA STAR Grant Peer Review Meeting: <i>Adaptation for Future Air Quality Analysis and Decision Support Tools in Light of Global Change Impacts and Mitigation</i> , Baltimore, MD, February 3-4. |
| 2008 | Member, Search Committee for Director, Institute for the Study of Earth, Oceans, and Space, University of New Hampshire. |
| 2008 | Member, NSF Antarctic Glaciology Review Panel, Antarctic Glaciology Program, Office of Polar Programs, Arlington, VA, September 23 - 24. |
| 2007-2010 | Member, NASA Tropospheric Chemistry Program, Arctic Research of the Composition of the Troposphere from Aircraft and Satellites (ARCTAS) Science Team. |
| 2007-2009 | Member, NASA Tropical Composition, Cloud and Climate Coupling (TC ⁴) Science Team. NASA Headquarters Atmospheric Composition Focus Area: Upper Atmospheric Research, Radiation Science, and Tropospheric Chemistry Programs. |
| 2005-2008 | Member, NASA Global Tropospheric Experiment <i>Intercontinental Chemical Transport Experiment</i> (INTEX-B) Science Team. |

- 2005-2006 Lead Reviewer in Atmospheric Sciences for International Panel for CSIRO Atmospheric and Marine Research Programs, Brisbane/Canberra/Melbourne/Hobart, Australia/Tasmania (spent 2 weeks traveling to National Laboratories for science assessments).
- 2004-2006 Chairman, University Membership Committee, University Corporation for Atmospheric Research (UCAR), National Center for Atmospheric Research (NCAR), Boulder, CO. Review new and renewal applications to UCAR by universities across the U.S. (2004 – present). Report results at National Meeting in Boulder, CO.
- 2004-2007 Advisory Board for Mount Washington Observatory Research Infrastructure Upgrade, North Conway, NH.
- 2003-2006 Member, NASA Global Tropospheric Experiment *Intercontinental Chemical Transport Experiment* (INTEX-NA) Science Team.
- 2002 Experts Panel on New Technologies in Environmental Work, New England Board of Higher Education, Bethel, Maine, August 2002.
- 2002 Peer-review panel for NSF Integrative Education and Research Graduate Education (IGERT) program (Analytic Meeting).
- 2002 Peer-review panel (content specialist) for the NSF IGERT project on Biospheric-Atmospheric Research Training (BART) program at the University of Michigan, July 2002.
- 2001 Peer-review panel for NSF Antarctic Glaciology/Division of Polar Programs, Washington, D.C., September 2001.
- 2000-2003 Member, University Membership Committee, University Corporation for Atmospheric Research (UCAR), National Center for Atmospheric Research (NCAR), Boulder, CO.
- 2000-present Member, Executive Committee – Institute for the Study of Earth, Oceans, and Space, University of New Hampshire.
- 2000-present Member, Strategic Planning Committee – Institute for the Study of Earth, Oceans, and Space, University of New Hampshire.
- 1999-present Member, NASA Global Tropospheric Experiment Transport and Chemical Evolution over the Pacific (TRACE-P) Science Team.
- 1999-2002 Member, NSF/NCAR Tropospheric Ozone Production about the Spring Equinox (TOPSE) Science Team.

- 1998-2001 Member, NASA Global Tropospheric Experiment-Pacific Exploratory Mission: Tropics B (PEM-Tropics B) Science Team.
- 1995-present Members' Representative (together with Professor Huiting Mao) to the University Corporation for Atmospheric Research, NSF/National Center for Atmospheric Research, Boulder, CO.
- 1997-1998 Member, NASA Atmospheric Effects of Aviation/Subsonic Assessment-SASS Ozone and Nitrogen Oxide Experiment (SONEX) Science Team.
- 1995-1998 Member, NASA Global Tropospheric Experiment-Pacific Exploratory Mission: Tropics A (PEM-Tropics A) Science Team.
- 1995-1998 Member, NASA Atmospheric Effects of Aviation/Subsonic Assessment-Subsonic Aircraft: Contrail and Cloud Effects Special Study (SUCCESS) Science Team.
- 1994-1996 Member, NSF Gaseous Sulfur Intercomparison Experiment (GASIE) science team on the measurement of tropospheric SO₂ in remote regions.
- 1993-1995 Member "Inlets Group" for outfitting the new National Center for Atmospheric Research (Boulder, CO) Hercules EC-130Q aircraft.
- 1991-1995 Member, NASA Global Tropospheric Experiment-Transport and Chemistry Near the Equator - Atlantic (TRACE - A) Science Team.
- 1993-1996 Member, NASA Global Tropospheric Experiment-Pacific Exploratory Mission: West (PEM-West B) Science Team.
- 1990-1993 Member, NASA Global Tropospheric Experiment-Pacific Exploratory Mission: West (PEM-West A) Science Team.
- 1989 Member, Department of Energy review/recommendation panel for the MAP3S Precipitation Chemistry Network, Bethesda, MD. Prepared report to DOE recommending options and future research plans for MAP3S network.
- 1988 Member, NASA GTE/CITE-3 peer-review panel for Omnibus and P.I. proposals, Washington, DC.
- 1989-1991 Member, NASA Global Tropospheric Experiment - Arctic Boundary Layer (ABLE-3B)Expedition Science Team.
- 1987-1989 Member, NASA Global Tropospheric Experiment -Alaskan Boundary Layer Expedition (ABLE-3A) Science Team.

- 1985-1987 Member, NASA Global Tropospheric Experiment - Amazon Boundary Layer Experiment (ABLE-2B) Science Team.
- 1984-1985 Member, NASA Global Tropospheric Experiment - Amazon Boundary Layer Experiment (ABLE-2A) Science Team.
- 1978-1979 Student Representative, Atmospheric Chemistry program faculty committee.
- 1977-1981 Member, Radioisotope handling and safety committee, University of Wisconsin-Madison.

PI on AIRBORNE SCIENCE MISSIONS

NASA Electra:	GTE ¹ /ABLE-1 (1984)
NASA Electra:	GTE/ABLE-2A (1985)
NASA Electra:	GTE/ABLE-2B (1987)
NASA Electra:	GTE/ABLE-3A (1988)
NASA Electra:	GTE/ABLE-3B (1990)
NASA DC-8:	GTE/PEM-West A (1991)
NASA DC-8:	GTE/TRACE-A (1992)
NASA DC-8:	GTE/PEM-West B (1994)
NASA DC-8:	SASS/SUCCESS (1995)
NASA DC-8:	GTE/PEM-Tropics A (1996)
NASA DC-8:	SASS/SONEX (1997)
NASA DC-8 and P3-B:	GTE/PEM-Tropics B (1999)
NSF/NCAR C-130:	TOPSE (2000)
NASA DC-8:	GTE/TRACE-P (2001)
NASA DC-8	GTE/DICE (2003)
NASA DC-8	INTEX-A (2004)
NASA DC-8	PAVE (2005)
NASA DC-8	INTEX-B (2006)
NASA DC-8	TC ⁴ (2007)
NASA DC-8	ARCTAS (2008)

PI on Shipboard Science Cruises

NOAA Ronald Brown	NEAQS 2002
NOAA Ronald Brown	ICARTT 2004
NOAA Ronald Brown	TexAQS II 2006
NOAA Knorr	ICEALOT 2008

¹ NASA Global Tropospheric Experiment (Global Tropospheric Chemistry Program)

PI on NOAA Smart Balloon Flights

ICARTT 2004 (North Atlantic)
TexAQS II 2006 (Gulf of Mexico)

DEPARTMENTAL SERVICE

- 2013-14 Merit Review Committee (Chair), Department of Earth & Atmospheric Sciences, University of Houston.
- 2011-13 Promotion and Tenure Committee, Department of Earth & Atmospheric Sciences, University of Houston.
- 2006 Member, search committee in Dept. of Chemistry for Physical/Atmospheric Chemist.
- 2007 Obtained ICP-MS for department faculty/student use.
- 2002 Chair, Dept. of Earth Science search committee for Atmospheric Chemist.
- 2002 Member, EOS search committee for Atmospheric Chemist (served as affirmative action liaison).
- 2001 Chair, EOS search committee for Atmospheric Chemist & Chief Scientist for The Mount Washington Observatory.
- 2001 Chair, EOS search committee for Meso-Scale Modeler.
- 2000 ESci Promotion & Tenure Committee.
- 1997 ESci Promotion & Tenure Committee.
- 1984-1988 Laboratory Supervisor: supervised one full-time laboratory technician; ion chromatography facilities for analysis of remote area aerosol composition (inorganic and organic constituents); total organic carbon content using non-dispersive IR). Developed and maintained equipment for soluble atmospheric trace gas sampling, analysis, and permeation calibration systems, Langley Research Center.
- 1982-1983 Laboratory Supervisor: clean room facilities for trace metal analysis, atomic absorption spectrophotometers, and electro-analytical equipment, Clemson University.
- 1977-1981 Student Supervisor, Laboratory Instrumentation: including atomic absorption spectrophotometers, gamma and alpha spectroscopy systems, University of Wisconsin-Madison.

TEACHING EXPERIENCE

- Fall 2014 Taught Aerosols & Climate Lecture & Labs GEOL4340/6321
- Spring 2014 Taught Introduction to Global Climate Change GEOL 1302 & Labs GEOL 1102
- Fall 2013 Taught Atmospheric Chemistry GEOL 3382 & GEOL 6634
- Spring 2013 Taught Introduction to Global Climate Change GEOL 1302
- Fall 2012 Taught Aerosols & Climate GEOL 4340 & GEOL 6390
- Spring 2011 Taught Introduction to Global Climate Change GEOL 1302
- Fall 2011 Taught Atmospheric Chemistry GEOL 3382 & GEOL 6334
- Spring 2011 Taught graduate seminar in Atmospheric Sciences, University of Houston.
- Fall 2008/10 Taught graduate level course, Global Atmospheric Chemistry (EOS 815/ESci 815, 3 credits).
- Fall 2006 Taught graduate level course with H. Mao in Regional Air Quality (EOS 995, 3 credits).
- Fall 2005 Taught graduate level course, Global Atmospheric Chemistry (EOS 815/ESci 815, 3 credits).
- 2003-2004 Developed and taught course with H. Mao in Regional Air Quality (EOS 996, 3 credits).
- 2001-2003 Helped develop and taught introductory module on Atmospheric Chemistry for Earth System Science: Understanding Our Global Environment (EOS 795/895, 3 credits).
- 1995-2000 Senior undergraduate/graduate level course (EOS 795/895, 3 credits) in Aerosol and Precipitation Chemistry, Institute for the Study of Earth, Oceans and Space, University of New Hampshire. Helped to develop course and taught sections of it every third semester.
- 1990-2002 Teach senior undergraduate/graduate level course (EOS 715/815, 3 credits) in Global Atmospheric Chemistry, Institute for the Study of Earth, Oceans and Space, University of New Hampshire. Developed and teach course every third semester.

1989-1998 Guest lecturer in undergraduate Environmental Chemistry course (Chem. 520), Department of Chemistry, University of New Hampshire.

1981-1983 Taught modules of graduate level courses (3 credits each) in Environmental Chemistry (I and II), Department of Civil Engineering, Clemson University.

ADMINISTRATIVE & RESEARCH GROUP

CURRENT

Undergraduates Christine Vo (SURF summer 2014)

Postdocs: Dr. Patrick Laine (Ph.D. GaTech) – Atmospheric Mercury, CO₂
Dr. Yaping Xiao (Ph.D. Harvard Univ.) – Global Chemical Transport Modeling
Dr. Jeffrey Sigler (Ph.D. Yale Univ.) – Atmospheric Mercury
Dr. Yong Zhou (Ph.D. UNH) – Volatile Organic Compounds

High School Students:

Julia Day, Souhegan High School – Amherst, NH, Served as outside expert for her senior project on climate that used AIRMAP regional data, March – May 2006.

Undergraduate Students:

Shannon Buckley (Natural Resources), Sponsored her for Marshall and Fulbright Fellowships to study climate & policy at University of Edinburgh, Scotland, 2005-2006.

Undergraduate Interns:

Katie Pingree (Plymouth State University), Alia Bluestein (Brandeis University), Robbie Bartlett (Hobart College).

Graduate Students:

Principal Advisor

Lan Xin, Ph.D. Atmospheric Science, *Regional modeling of atmospheric mercury in the Houston area.*

Dara Feddersen, Ph.D. Chemistry, *Atmospheric mercury in the Northeast.*

Liu Lei, M.S., Atmospheric Science, *A 20-year climatology of O₃ for Houston, Texas.*

Azucena Torres, M.S., Atmospheric Science, *Influence of the energy industry on speciated mercury in Southeastern Texas.*

PAST

Dr. Professor Otto Klemm, Universität Münster Institut für Landschaftsökologie – Klimatologie, Germany (March – September 2006).

Ms. Kerstin Klemm (research technician in my lab), University of Münster, Germany

Mr. Garry Seid (Research Technician)

Dr. Krystyna Gorzelska (Postdoctoral Fellow)

Undergraduate Students:

Patricia Campbell, (Junior/Senior - Chemistry), *Urea in the atmosphere: Development of a sensitive fluorescence technique and application to field measurements*, senior thesis project (1996 - 98).

Jenn Larkin (Senior - Chemistry), *Measurements of atmospheric ammonia using a passive sampling technique*, senior thesis project (1997).

Marie Evans (Senior - Chemistry), *The measurement of mercury in precipitation and its wet deposition flux in Northern New England*, senior thesis project (1997).

Rachel Worthen (Junior/Senior - Chemical Engineering), Sponsor for McNair Graduate Opportunity Program, Research Area - air pollution control (1995-1996).

Graduate Students:

Nick Spada (committee member), *Detection and Characterization of Size- and Time-Resolved Particulate Matter Using Enhanced Optical and Elemental Analyses: Implications for Anthropogenic Source Identification in the Houston Ship Channel Area*, April 2014, Postdoc UC-Davis.

Dara Feddersen,

Tzu-Ling Lai (committee chairman), *Modeling of regional O₃ in New England*, Ph.D. Earth and Environmental Science. December 2011. Currently seeking postdoctoral position.

Shannon Davis (committee chairman), *Meteorological controls on continental outflow from the northeast U.S.*, Ph.D. Earth and Environmental Science. December 2011. Currently seeking

postdoctoral position.

Su Youn Kim (committee chairman), *Outflow of polluted air from the U.S. and modeling of atmospheric mercury in different environments*, Ph.D. Earth and Environmental Science. December 2010, Currently Postdoctoral Fellow University of Minnesota.

Jesse Ambrose (committee member), *Volatile organic compounds in the New England troposphere: Atmospheric chemistry and measurement techniques*, Ph.D. Chemistry. May 2010. Currently Postdoctoral Fellow University of Washington.

Rachel Russo (committee member), *Temporal variation, regional sources, and removal processes of volatile organic compounds in New England*, Ph.D. Earth and Environmental Science. May 2009. Currently Research Scientist University of New Hampshire.

Leanna Conway (committee member), *Design and construction of a chemical ionization mass spectrometer for ambient nitryl chloride analysis*, M.S. Chemistry. May 2009. High School teacher in MA.

Jennifer Hegarty (committee member), *Synoptic controls on ozone over the northeastern U.S. and continental export*, Ph.D. Earth and Environmental Science. May 2009. Currently Research Scientist Atmospheric & Environmental Research (AER), Lexington, MA.

Eric Scheuer (committee chairman), *Observations of Arctic haze from the NCAR C-130 during TOPSE (2000) and evidence of HNO₃ uptake and redistribution by cirrus clouds during TC\$ (2007) obtained from the NASA DC-8*, M.S. (Earth Sciences). May 2008. Currently Research Scientist University of New Hampshire.

Marguerite White (committee member), *Hydrocarbon reactivities in the coastal New England atmosphere*, Ph.D. Earth and Environmental Science. May 2008. Currently Assistant Professor Merrimack College.

Yong Zhou (committee member), *Atmospheric volatile organic compound measurements: Distributions and effects on air quality in coastal marine, rural and remote continental environments*, Ph.D. Earth and Environmental Science. May 2007. Currently Research Scientist Appalachian State.

Diana Lewis (committee member), *Atmospheric ozone detection using a tin oxide solid state sensor*, M.S. Mechanical Engineering. May 2008. Currently Engineer Nanocomp Technologies.

Xuyi Cai (committee member), *Organic aerosol formation from the oxidation of biogenic hydrocarbon by chlorine atoms*, Ph.D. Earth and Environmental Science. May 2008. Currently Postdoctoral Fellow Duke University.

James Chen (committee member), *Modeling of secondary organic aerosols*, Ph.D. Earth and Environmental Science. May 2008. Currently Research Scientist California Air Resources Board.

Pallavi Mittal (committee chairman), *Natural and Anthropogenic Sources of CH₄ in New England*, M.S. (Earth Sciences). May 2008. Currently Research Scientist LiCorr Instruments.

Luke Ziemba (committee member), *Aerosol properties in New England*, M.S. (Earth Sciences).

Emily Fischer (committee chairman), *Ozone at high elevation sites in NH: Summertime transport characteristics*, M.S. (Earth Sciences). May 2008. Currently Postdoctoral Fellow Harvard University.

Rachel Russo (committee chairman), *Impact of Regional Transport on Atmospheric Chemistry in Two Regions: Part I The Western Pacific, Part II New England*, M.S. (Earth Sciences). May 2006. Research Scientist University of New Hampshire.

Samuel T. Miller, Ph.D., (committee member), *The central New England sea breeze study*, September 2003. May 2003. Currently Associate Professor Plymouth State University.

Linsey DeBell, M.S., (committee chairman), *Impact of Asian dust and Quebec forest fire emissions on atmospheric chemistry in New England*, August 2003. Currently Researcher Environ.

Marcy Vozzella, M.S., (committee chairman), *Real-time measurement of HNO₃ on the Ron Brown during NEAQS 2002*, July 2003. Currently Assistant Professor Merrimack College.

John Slater, Ph.D., (committee member), *Chemical and optical characterization of aerosols in New Hampshire*, December 2002. Currently Associate Professor St. Asylums College.

Mathew Loomis, Ph.D., (committee chairman), *Physical and chemical characterization of single atmospheric aerosols: Laboratory studies of interactions of acidic trace gases with sea-salt aerosols and development efforts for an aerosol charging system using a corona discharge*, May 2002. Currently Associate Professor Maritime Academy.

Ruth Varner, Ph.D., (committee member) *Atmospheric methyl bromide exchange with wetland ecosystems*, May 2000. Research Associate Professor University of New Hampshire.

Carolyn E. Jordan, Ph.D., (committee chairman), *Atmospheric transport and deposition of water-soluble nitrogen to the Gulf of Maine*, December 1999. Research Scientist University of New Hampshire.

Slater, J. F., M.S., (committee member), *Source apportionment of chemical species in Greenland snow and firn*, May 1999.

Lynette J. Gelinas, Ph.D., (committee member), *Mesospheric dust as a source of sudden atom layers*, May 1999. Currently Associate Professor Cornell University.

Arun B. Shrestha, Ph.D., (committee member), *Physical and chemical climate in the Nepal Himilaya*, December 1998. Currently Researcher in Nepal.

Karl Kreutz, Ph.D., (committee member), *Spatial distribution of atmospheric species in surface snow in Antarctica*, May 1998. Currently Associate Professor University of Maine.

Barry L. Lefer, Ph.D., (committee chairman), *Biosphere-atmosphere interaction of nitrogen species in a forest setting*, November 1997. Currently Associate Professor University of Houston.

QinZhao Yang, Ph.D., (committee member), *Investigating the spatial and seasonal distribution of chemical species in the Greenland ice sheet*, May 1995. Currently Researcher in China.

Cameron Wake, Ph.D., (committee member), *The spatial distribution of snow and aerosol chemistry in the mountains of central Asia*, May 1993. Currently Research Associate Professor University of New Hampshire.

Scott Drummey, MS. (committee member), *From snow to ice: A study of the H₂O₂ content of polar snow and ice from the Greenland and Antarctic ice sheets*, December 1993. Currently Researcher NOAA.

Barry L. Lefer, MS. (committee chairman), *Enhancements of phosphorus and carboxylic acids in biomass burning plumes over Canada during ABLE-3B*, May 1992. Currently Associate Professor University of Houston.

PRESENTATIONS

Talbot, R., *Atmospheric Mercury: Are We Measuring It Correctly?*, 4th International Conference on Earth Science & Climate Change, San Francisco, CA, July 2014.

Mao, Huiting, **R. Talbot**, and T. Holsen, *Potential Controls on Trends in Background Concentrations of Hg^o in the Northeastern U.S.*, 4th International Conference on Earth Science & Climate Change, San Francisco, CA, July 2014.

Liu, Lei, and **Robert Talbot**, *A Meteorological Climatology for the Past 23 Years to Quantify Potential Changes in Air Flow and Ozone in the Houston Area*, American Association of Petroleum Geologists, Houston, Texas, April 2014.

Lan, Xin, Patrick Laine, **Robert Talbot**, Barry Lefer, and James Flynn, *Atmospheric Mercury Measurements in the Barnett Shale Area, Texas: Implication for Oil and Gas Emissions*, American Association of Petroleum Geologists,

Houston, Texas, April 2014.

- Lan, X., **R. Talbot**, A. Torres, C. Rella, and E. Crosson (2014), *Investigating Methane Fugitive Emissions in the Barnett Shale Area using Mobile Laboratory CH_4 and $\delta^{13}CH_4$ Measurements: Preliminary Report*, Environmental Defense Fund project meeting, Denver, CO.
- Laine, P., X. Lan, D. Anderson, A. Torres, and **R. Talbot**, *Results from mobile lab measurements obtained in the Barnett Shale with emphasis on methane and gaseous mercury emissions (Fort Worth, TX)*, American Geophysical Union meeting, San Francisco, December, 2013.
- Lan, X., P. Laine, **R. Talbot**, B. Lefer, J. Flynn, and B. Sive, *Identifying anthropogenic emissions of atmospheric mercury and methane in urban Houston using measurements from a mobile laboratory*, American Geophysical Union meeting, San Francisco, December, 2013.
- Mao, H., and **R. Talbot**, *Trends of gaseous elemental mercury in New England during 2003-2010*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Hall, C., Mao, H., **R. Talbot**, J. Zhu, and T. Wang, *Atmospheric mercury pollution in Nanjing, China: Episodes and cycles*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Zhu, J., T. J. Wang, **R. Talbot**, and H. Mao, *Characteristics of atmospheric mercury deposition in urban Nanjing, China*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Xin Lan, Patrick Laine, Azucena Torres, and **Robert Talbot**, *Identification of Anthropogenic Emission Sources of Atmospheric Mercury in the Houston Area using Continuous Measurements and a Mobile Lab*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Azucena Torres, Xin Lan, Patrick Laine, and **Robert Talbot**, *Comparison of Speciated Mercury in Urban and Coastal Settings in the Broader Houston Area*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Patrick Laine, Xin Lan, Azucena Torres, and **Robert Talbot**, *A Comparison Between Total Mercury and Speciated Mercury Measured in an Urban Environment (Houston, TX)*, International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- Talbot, R.** and P. Laine, *Challenges of Using Ambient Methane Sensors to Locate Fugitive Emissions & Meteorology of Fort Worth in September*, Environmental Defense Fund, Dallas, Texas, June 24, 2013.

- Tittel, F. K., R. Lewicki, M. Jahjah, P. Stefanski, J. Tarka, L. Gong, R. Griffin, S. So, D. Thomazy, W. Jiang, J. Zhang, P. Lane, and **R. Talbot**, *Mid-infrared semiconductor laser based trace gas technologies: recent advances and applications*, Russian Academy of Sciences, Moscow, Russia, June 2013.
- Talbot, R.**, *Atmospheric Mercury: What we know and what we don't know*, Edwin Allday lecturer in the Jackson School of Geosciences, University of Texas, Austin, TX, February, 2013.
- Lan, X., P. Laine, B. Lefer, and **R. Talbot**, *Seasonal and diurnal variations of atmospheric mercury in Houston, Texas*, American Geophysical Union meeting, San Francisco, December, 2012.
- Laine, P., **R. Talbot**, B. Lefer, and J. Flynn, *Analysis of Atmospheric Mercury and Associated Trace Gases in Dallas Fort Worth, TX (Barnett Shale area)*, American Geophysical Union meeting, San Francisco, December, 2012.
- Hall, C., H. Mao, **R. Talbot**, J. Zhu, and T. Wang, *Atmospheric mercury pollution in Nanjing, China: Observations and Data Analysis*, American Chemistry Society Northeastern regional Meeting in Rochester, New York, 30 September - 3 October 2012.
- Talbot, R.**, *Re-Shaping planet Earth: Climate change influences air quality globally*, 4th International forum (Zhongshan Forum) on Climate and Global Change, Nanjing University, Nanjing, China, May 2012.
- Talbot, R.**, *25 Years of Airborne Science: Studying Global Air Quality and Dynamics*, Chemistry Department, SUNY – College of Environmental Science & Forestry, Syracuse, NY, March 2012.
- Talbot, R.**, *Air Quality at Coastal Sites and its Relationship to Continental Outflow*, School of Atmospheric Sciences, Nanjing University, Nanjing, China, January 2012.
- Haase, K. B., B. C. Sive, M. L. White, R. S. Russo, J. L. Ambrose, Y. Zhou, **R. W. Talbot**, *Measurements of Acetic Acid and its Relationships with Trace Gases on Appledore Island, ME during the ICARTT Campaign*, AGU fall meeting, San Francisco, December 2011.
- Talbot, R.**, X. Lan, B. Lefer, and J. Flynn, *Elemental mercury sources and its diurnal variation in the Fort Worth, Texas atmosphere*, AGU fall meeting, San Francisco, December 2011.
- Lan, X., **R. Talbot**, and the AMNet site operators, *Seasonal and Annual Variations of Atmospheric Mercury Across the U.S. Determined from AMNet Monitoring Data*, AGU fall meeting, San Francisco, December 2011.
- Lombard, M., J. Bryce, D. Feddersen, H. Mao, and **R. Talbot** (2012), *Relationships between Hg and sea salt ion concentration in rainwater from a marine site*, GSA Northeastern Section - 47th Annual Meeting, March 2012, Hartford, Connecticut.

- Lan, X., **R. Talbot**, and the AMNet site operators, *Seasonal and Annual Variations of Atmospheric Mercury Across the U.S. Determined from AMNet Monitoring Data*, International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.
- Horowitz, H. M., E. S. Corbitt, **R. Talbot**, H. Mao, D. J. Jacob, H. M. Amos, and E. M. Sunderland, *Modeled and Observed Atmosphere-Terrestrial Exchange of Hg(0) in a Temperate Hardwood Forest*, International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.
- Mao, H., and **R. Talbot**, *Long-term variation in speciated mercury at marine, coastal and inland sites in New England*, International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.
- Lai, Tzu-Ling, **R. Talbot**, *Decadal ozone trends in the rural sites of New England in the United States*, European Geophysical Meeting, April 2011.
- Feddersen, D., R. Talbot, H. Mao, and B. Sive (2011), *Comparison of particulate mercury in marine and continental atmospheres*, American Chemical Society, Anaheim, CA, March 2011.
- Talbot, R.**, H. Mao, D. Feddersen, M. Smith, S. Y. Kim, B. Sive, K. Haase, J. Ambrose, Y. Zhou, and R. Russo, *Comparison of particulate mercury measured with manual and automated methods*, AGU fall meeting, San Francisco, December 2010.
- Mao, H., **R. Talbot**, and J. Hegarty, *Long-term variation in speciated mercury at marine, coastal, and inland sites in New England*, AGU fall meeting, San Francisco, December 2010.
- Kim, S. Y., **R. Talbot**, and H. Mao, *Cycling of gaseous elemental mercury: Importance of water vapor*, AGU fall meeting, San Francisco, December 2010.
- Feddersen, D., **R. Talbot**, H. Mao, M. Smith, and B. Sive, *Size distribution of atmospheric particulate mercury in marine and continental atmospheres*, AGU fall meeting, San Francisco, December 2010.
- Shakya, K., P. Place, R. Griffin, A. Ouimette, and **R. Talbot**, *Characterization of stable carbon and nitrogen isotopes in aerosols at a semi-remote location in New England: Temporal variations and implications for sources*, AGU fall meeting, San Francisco, December 2010.
- Hwang, G., **R. Talbot**, *Impact of mercury from the Canadian boreal forest wildfires to New England*, AGU fall meeting, San Francisco, December 2010.
- Feddersen, D., **R. Talbot**, H. Mao, M. Smith, and B. Sive, *Size distribution of atmospheric particulate mercury in marine and continental atmospheres*, AGU fall meeting, San Francisco, December 2010.

- Ambrose, J., Y. Zhou, K. Haase, H. Mayne, **R. Talbot**, B. Sive, *A gas chromatographic instrument for measurement of hydrogen cyanide in the lower atmosphere*, AGU fall meeting, San Francisco, December 2010.
- Sive, B., M. White, R. Russo, Y Zhou, J. Ambrose, K. Haase, H. Mao, and **R. Talbot**, *Spatial and temporal volatile organic compound measurements in New England: Key insight on sources and distributions*, AGU fall meeting, San Francisco, December 2010.
- Mao, H., **R. Talbot**, and J. Hegarty, *Long-term variation in speciated mercury at marine, coastal, and inland sites in New England*, NADP annual AMNet meeting, Lake Tahoe, October 2010.
- Talbot, R.**, H. Mao, D. Feddersen, M. Smith, S. Y. Kim, B. Sive, K. Haase, J. Ambrose, Y. Zhou, and R. Russo, *Comparison of particulate mercury measured with manual and automated methods*, NADP annual AMnet meeting, Lake Tahoe, October 2010.
- Talbot, R.**, *The changing composition and climate of our atmosphere*, Durham Retired Association, Durham, NH, November 17, 2010.
- Talbot, R.**, *Integrating Regional-to-Global Studies of Atmospheric Chemistry*, Houston Advanced Research Center, Woodlands, TX, April 8, 2010.
- Smith, M., J. Bryce, H. Mao, and **R. Talbot**, *Mercury wet deposition patterns at Thompson Farm, Durham, NH – July 2006 to August 2009*, Geological Society of America Meeting, Baltimore, MD, March 2010.
- Mao, H., **R. Talbot**, B. Sive, Su Youn Kim, D. R. Blake, and A. J. Weinheimer, *Arctic mercury depletion and its quantitative link with halogens*, AGU Fall Meeting, San Francisco, CA, December 2009.
- Talbot, R.**, H. Mao, and B. Sive, *Boreal forest fires and pyrocumulonimbus convection as a source of Hg° to the troposphere*, AGU Fall Meeting, San Francisco, CA, December 2009.
- Kim, Su Youn, **R. Talbot**, and H. Mao, *Chemical transformations of Hg° during Arctic mercury depletion events sampled from the NASA DC-8*, AGU Fall Meeting, San Francisco, CA, December 2009.
- Davis, S. R., **R. Talbot**, ICARRT Science Team (2009), *Observations of plume transport and continental outflow in the lower troposphere during the ICARTT 2004 campaign*, AGU Fall Meeting, San Francisco, CA, December 2009.
- Sawyer, V. R., R. K. Varner, P. J. Kelly, E. J. Welton, D. C. Vandemark, De. E. Wolfe, and **R. Talbot** (2009), *Height of the planetary boundary layer during ICEALOT 2008*, AGU Fall Meeting, San Francisco, CA, December 2009.

- Talbot, R.**, *25 years of airborne science: Documenting global air quality and dynamics*, School of Atmospheric Science, Nanjing University, Nanjing, China, June 2009.
- Talbot, R.**, *AIRMAP: Studying air quality and climate interactions*, Keynote Speaker at Zhongshan Forum for Climate and Global Change, Nanjing University, Nanjing, China, June 2009.
- Talbot, R.**, *Boreal forest fires and pyrocumulonimbus convection as a source of Hg^o to the troposphere*, 9th International Conference on Mercury as a Global Pollutant, Guiyang, China, June 2009.
- Holmes, C., B. Corbitt, D. Jacob, A. Sorenson, E. Sunderland, and **R. Talbot**, *A global mercury simulation and budget based on Hg+Br chemistry*, GEOS-Chem workshop, Harvard University, Cambridge, MA, April 2009.
- Mao, H. and **R. Talbot**, B. Sive, S-Y Kim, *Factors influencing tropospheric Hg^o in the spring- and summertime North American Arctic*, NASA ARCTAS science team meeting, Virginia Beach, VA, 26-30 January 2009.
- Kim, S-Y, H. Mao, and **R. Talbot**, *Depletion of Hg^o near the surface and in the stratosphere*, NASA ARCTAS science team meeting, Virginia Beach, VA, 26-30 January 2009.
- Talbot, R.**, H. Mao, and B. Sive, *Boreal wildfires as a source of Hg^o to the troposphere*, NASA ARCTAS science team meeting, Virginia Beach, VA, 26-30 January 2009.
- Talbot, R.**, Y. Xiao, H. Mao, and J. Hegarty, *The Interannual Variability of Winter Ozone in Northeast U.S.*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Xiao, Y., **R. Talbot**, H. Mao, and J. Hegarty, *Meteorological Controls on Spring Ozone Variability in Lower Troposphere in Northeast U.S.: Implications for Stratospheric Intrusions*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Crawford, J., G. Sachse, G. Diskin, G. Chen, P. Nedelec, V. Thouret, A. Weinheimer, D. Knapp, **R. Talbot**, G. Huey, R. Griffin, R. Cohen, T. Ryerson, and E. Williams, *Assessing scales of variability for atmospheric composition field data relevant to future Decadal Survey satellite observations*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Sigler, J., H. Mao, and **R. Talbot**, *Gaseous elemental and reactive mercury at marine, coastal and inland sites in New Hampshire*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Sawyer, V., P. Kelly, E. Welton, **R. Talbot**, and R. Varner, *Micro-pulse lidar observations of the Arctic Haze during ICEALOT 2008*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.

- Xiao, Y., **R. Talbot**, J. Hegarty, *Meteorological controls on spring ozone variability in lower troposphere in Northeast U.S.: Implications for stratospheric intrusions*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Stewart, S., E. Welton, J. Campbell, E. Reid, J. Barnes, P. Kelly, **R. Talbot**, and N. Lin, *Initial lidar observations of the Kasatochi plume at multiple MPLNET sites*, Fall 2008 AGU Meeting, San Francisco, CA, December 2008.
- Mao, H., M. Chen, B. Sive, **R. Talbot**, R. Varner, and R. Griffin, *Project Final Review: A Coupled Measurement-Modeling Approach to Improve Biogenic Emission Estimates: Application to Future Air Quality Assessments*, EPA STAR meeting, Research Triangle Park, North Carolina, October 2008.
- Talbot, R.**, and H. Mao, *An International Airborne Campaign to Advance Understanding of the Hemispheric-to-Global Distribution of Mercury in the Atmosphere*, Workshop on Reducing Uncertainties in Atmospheric Measurements, University of Washington, Seattle, WA, October 2008.
- Mao, H., and **R. Talbot**, *What Measurements are Needed to Advance Understanding of Mercury Chemistry in the Atmosphere*, Workshop on Reducing Uncertainties in Atmospheric Measurements, University of Washington, Seattle, WA, October 2008.
- Talbot, R.**, H. Mao, and B. Sive, *AIRMAP – Study Air Quality in the Coastal Environment: A Potential Ground-Truth Location for GEO-CAPE*, NASA Science Definition Planning Workshop, University of North Carolina, Chapel Hill, NC, August 18-20, 2008.
- Crawford, J., and **R. Talbot**, *Assessing Scales of Variability for GEO-CAPE Observations Based on Field Campaign Data*, NASA Science Definition Planning Workshop, University of North Carolina, Chapel Hill, NC, August 18-20, 2008.
- Mao, H., and **R. Talbot**, *AIRMAP: Understanding Air Quality and Climate in the Northeast*, IEEE Meeting, Boston, MA, July 6, 2008.
- Mao, H., **R. W. Talbot**, J. M. Sigler, B. C. Sive, and J. D. Hegarty, *Seasonal and diurnal variations of Hg⁰ over New England*, AICI-HiT-SPARC Workshop, British Antarctic Survey, Cambridge, UK, June 16-18, 2008.
- Talbot, R. W.**, H. Mao, E. Scheuer, J. Dibb, and M. Avery, *Total depletion of Hg⁰ in the upper troposphere – lower stratosphere*, AICI-HiT-SPARC Workshop, British Antarctic Survey, Cambridge, UK, June 16-18, 2008.
- Talbot, R.**, Invited – *Hemispheric Scale Cycling of Atmospheric Mercury*, Symposium on Environmental Chemistry at the 2008 Northeast Regional American Chemical Society Meeting, Burlington, VT, June-July 2008.

- Ambrose, J., H. Mao, H. R. Mayne, J. Stutz, **R. Talbot**, and Barkley Sive, *Nighttime nitrate radical chemistry at Appledore Island, Maine during the 2004 International Consortium for Atmospheric Research on Transport and Transformation*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- Kim, S. Y., **R. Talbot**, H. Mao, D. Blake, S. Vay, and H. Fuelberg, *Convective outflow from the U.S. to the upper troposphere over the North Atlantic during the NASA INTEX-NA airborne campaign*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- Mao, H., **R. Talbot**, J. Sigler, B. Sive, and J. Hegarty, *Seasonal and diurnal variations of Hg⁰ over New England*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- McDowell, W. H., M. L. Daley, B. Sive, and **R. Talbot**, *Linking atmospheric deposition to air mass chemistry at a coastal rural site*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- Sigler, J., H. Mao, and **R. Talbot**, *Seasonal and diurnal variation in reactive gaseous mercury (RGM) in New England*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- Talbot, R.**, H. Mao, E. Scheuer, J. Dibb, M. Avery, E. Browell, G. Sachse, S. Vay, D. Blake, G. Huey, and H. Fuelberg, *Factors influencing the large-scale distribution of Hg⁰ in the Mexico City area and over the North Pacific*, Fall 2007 AGU Meeting, San Francisco, CA, December 2007.
- Talbot, R.**, Invited - *Understanding air quality and climate interactions in New England*, The Mount Washington Symposium on Air Quality and Climate, 75th Anniversary of the Mount Washington Observatory, The Mount Washington Hotel, Bretton Woods, NH, Sept. 7-8, 2007.
- Talbot, R.**, Invited - *The changing composition and climate of our atmosphere*, Invited Lecture, Rivier College, Nashua, NH, April 26, 2007.
- Talbot, R.**, and H. Mao, *Greenhouse Gases in New England: The Scientific Basis*, Briefing to Congresswoman Carol Shea-Porter and staff, University of New Hampshire, April 13, 2007.
- Mao, H., and **R. Talbot**, *Temporal Variability in Total Gas-phase Mercury over Central New England: Implications for Regional Budgets*, Fall 2006 AGU meeting, San Francisco, CA.
- Talbot, R.**, H. Mao, E. Scheuer, J. Dibb, D. Blake, G. Sachse, *Distribution of Total Gaseous Mercury During the NASA DC-8 INTEX-B Campaign*, Fall 2006 AGU meeting, San Francisco, CA.
- Tytell, J., R. Johnson, J. Porter, S. Businger, **R. Talbot**, D. Troop and H. Mao, *Spatial and*

Temporal Distribution of Ozone over Houston in the 2006 Texas Air Quality Study, Fall 2006 AGU meeting, San Francisco, CA.

Talbot, R., H. Mao, and J. Sigler, *Observations and regional budgets of Hg⁰ In New England*, NOAA Atmospheric Mercury Meeting, Silver Spring, MD, November 14-15, 2006.

Talbot, R., *The AIRMAP Network*, Briefing to National Weather Service - Northeast River Forecast Center and Hollings Scholar Intern, University of New Hampshire, July 27, 2006.

Talbot, R., *Snap Shots of Tropospheric and Stratospheric Processes*, Project Smart, Space Science Center, Institute for the Study of Earth, Oceans, and Space, University of New Hampshire, Durham, NH, July 17, 2006.

Talbot, R., *Understanding Air Quality and Climate Interactions in the Northeast*, Northeast Regional Air Quality Committee Annual Meeting, Schoodic Education and Research Center, Acadia National Park, Schoodic Point, ME, June 28-30, 2006.

Talbot, R., and H. Mao, *Smart Balloon participation in TexAQS II*, Texas Commission on Environmental Quality, Austin, TX, April 18, 2006.

Ambrose, J., H. R. Mayne, L. C. Nielsen, K. Haase, O. W. Wingenter, **R. Talbot**, and B. C. Sive, *Nighttime Oxidation of VOCs at Appledore Island, ME during ICARTT 2004*, Northeastern Student Chemistry Research Conference (NSCRC), Massachusetts Institute of Technology, Cambridge, MA, April 22, 2006.

Talbot, R., and H. Mao, UNH Air Quality and Climate Research, Briefing to Jack Dunnigan, Head, NOAA National Ocean Service, University of New Hampshire, April 6, 2006.

Ambrose, J., H. R. Mayne, B. C. Sive, J. Stutz, R. S. Russo, Y. Zhou, R. K. Varner, L. C. Nielsen, M. White, O. W. Wingenter, K. Haase, and **R. W. Talbot**, *Nighttime Chemistry at a Remote Marine Location during ICARTT 2004*, American Chemical Society, National Meeting, Atlanta, GA, March 26-30, 2006.

Ambrose, J., H. R. Mayne, B. C. Sive, J. Stutz, R. S. Russo, Y. Zhou, R. K. Varner, L. C. Nielsen, M. White, O. W. Wingenter, K. Haase, and **R. W. Talbot**, *Nighttime Oxidation of VOCs at Appledore Island, ME during ICARTT 2004*, 8th Annual Young Scientists' Conference, Fruhjahrssymposium of the German Chemical Society, Konstanz, Germany, March 17-18, 2006.

Hegarty, J., H. Mao, and **R. Talbot**, *Utilizing AURA measurements to investigate intercontinental transport from North America*, National Center for Atmospheric Research, Boulder, CO, February 20-21, 2006.

Mao, H., and **R. Talbot**, *Observations and modeling of O₃ in North American outflow*, Task force

- on Hemispheric Transport of Air Pollution, Intercontinental Transport Modeling Intercomparison Organizational Workshop, Environmental Protection Agency, Washington, DC, January 2006.
- Voss, P., R. Zaveri, C. Berkowitz, E. Riddle, **R. W. Talbot**, A. Stohl, D. Holcombe, T. Harley, *Improved techniques for measuring physical and chemical transformations in the atmosphere: Observations of pollution transport, wind shear, and profile evaluation using controlled meteorological balloons*, American Geophysical Union Meeting, San Francisco, CA, December 2005.
- Mao, H., **R. Talbot**, B. Sive, R. Varner and M. Chen (2005), *Biogenic Impact on O₃ Levels Under Elevated CO₂ Conditions*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Sive, B. C., Varner, R. K., C. Neilsen, R. S. Russo, Y. Zhou, M.L. White, A. Csakai, P. Beckman, J. Ambrose, O. W. Wingenter, H. Mao and **R. Talbot** (2005), *Isoprene and Monoterpene Emissions from Duke Forest: A Comparison of Ambient and Elevated CO₂ Environments*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Varner, R. K., B. C. Sive, R. S. Russo, Y. Zhou, M. L. White, A. Csakai, P. Beckman, J. Ambrose, O. W. Wingenter, H. Mao and **R. Talbot** (2005), *Evidence for Terrestrial Sources of Methyl Iodide*, *Eos Trans. AGU*, 86(52), AGU Fall Meeting, San Francisco, CA, December 2005.
- White, M. L., R. S. Russo, Y. Zhou, , R. K. Varner, L. C. Nielsen, J. Ambrose, P. Veres, A. Enomoto, O. W. Wingenter, K. Haase, **R. Talbot** and B. Sive (2005), *Hydrocarbon Measurements at Thompson Farm, NH and Appledore Island, ME: A Comparison of Relative Reactivities*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Zhou, Y., R. Russo, R. Varner, O. Wingenter, D. Blake, **R. Talbot** and B. Sive (2005), *Measurements of Bromoform and Dibromomethane in the Seacoast Region of NH, 2002-2004*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Fischer, E., W. Keene, J. Maben, A. Pszenny, A. Smith, and **R. Talbot**, *Nitric acid phase partitioning and cycling in the New England coastal atmosphere*, AGU Fall Meeting, San Francisco, CA, December 2005.
- White, A., C. Senff, L. Darby, J. Koerner and **R. Talbot**, *Comparing meteorological controls on regional air quality in the Northeastern U.S. during the summers of 2002 and 2004*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Pszenny, A., E. Fischer, W. Keene, C. Senff, B. C. Sive, **R. Talbot**, R. K. Varner and A. White (2005), *Hydro- and Halocarbon Oxidation in the New England Coastal Summer Atmosphere*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Ambrose, J. L., H. R. Mayne, J. Stutz, R. S. Russo, Y. Zhou, , R. K. Varner, L. C. Nielsen, M. L.

- White, O. W. Wingenter, K. Haase, **R. Talbot** and B. C. Sive, *Nighttime Oxidation of VOCs at Appledore Island, ME During ICARTT 2004*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Rawlins, T. W., A. J. Bauer, D. M. Sonnehfroh, E. J. Hinsta, M. S. Twickler, and **R. Talbot**, *Surface-level ozone variability in the Gulf of Maine during ICARTT 2004*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Hinsta, E., M. Twickler, **R. Talbot**, and T. Rawlins, *Surface ozone and atmospheric transport over the Gulf of Maine during ICARTT*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Cottrell, L. D., L. D. Ziemba, J. Chen, L. C. Nielsen, P. J. Beckman, B. C. Sive, H. Mao, **R. W. Talbot**, and R. J. Griffin, *Characterization of Organic Aerosols at Thompson Farm During ICARTT*, Forum on Organics in the Atmosphere, Alpe d'Huez, France, January 2006.
- Chen, M., H. Mao, and **R. Talbot**, *Terrestrial Vegetation Response to Climate Change Over North America from Increased Atmospheric CO₂*, AGU Fall Meeting, San Francisco, CA, December 2005.
- Chen, M., H. Mao, and **R. Talbot**, *A modeling study of climate-ecosystem interaction over North America*, U.S. Climate Change Science Workshop, Arlington, VA, November 2005.
- Ambrose, J. L., H. R. Mayne, L. C. Nielsen, K. Haase, O. W. Wingenter, **R. Talbot**, and B. C. Sive, *Nighttime oxidation of VOCs at Appledore Island during ICARTT 2004*, Waterloo Symposium on Chemical Physics, Waterloo, Canada, October 29-30, 2005.
- Nielsen, L. C., H. R. Mayne, B. C. Sive, **R. Talbot**, R. Varner, R. Russo, and Y. Zhou, *Detection and quantification of atmospheric oxygenated volatile organic compounds by proton transfer reaction mass spectrometry*, Symposium on Chemical Physics, Waterloo, Canada, October 2005.
- Ziemba, L. D., R. J. Griffin, and **R. W. Talbot**, *Spatial and temporal trends in particle acidity in northern New England*, European Aerosol Conference, Ghent, Belgium, September 2005.
- Talbot, R.**, H. Mao, B. C. Sive, and L. C. Nielsen, *An assessment of sources and sinks of methanol and acetone at Thompson Farm and Appledore Island during ICARTT*, ICARTT Data Analysis Workshop, Durham, NH, August 10, 2005.
- Mao, H., **R. Talbot**, D. Troop, B. Moore, R. Johnson, and S. Businger, *Smart Balloon observations over the North Atlantic*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.
- Sive, B. C., W. Keene, A. Pszenny, L. Russell, J. Stutz, R. Varner, R. von Glasow, and **R. Talbot**, *Aerosol and Trace Gas Measurements at the Isles of Shoals and Thompson Farm*, International Consortium for Atmospheric Research on Transport and Transformation

- (ICARTT) Data Analysis Workshop, Durham, NH, August 9, 2005.
- Sive, B. C., Y. Zhou, D. Troop, Y. Wang, L. C. Nielsen, O. W. Wingenter, R. K. Varner, R. Russo and **R. Talbot**, *Deployment of a novel cryogen-free concentration system for measurements of volatile organic compounds at Appledore Island during ICARTT*, ICARTT Data Analysis Workshop, Durham, NH, August 9-12, 2005.
- Fischer, E., W. Keene, J. Maben, A. Pszenny, A. Smith, and **R. Talbot**, *Nitrate phase partitioning and cycling in the New England coastal atmosphere*, ICARTT Data Analysis Workshop, Durham, NH, August 9-12, 2005.
- Russo, R., B. C. Sive, Y. Zhou, R. K. Varner, L. C. Nielsen, J. Ambrose, P. Veres, A. Enomoto, M. White, O. W. Wingenter, K. Haase, and **R. Talbot**, *Alkyl Nitrate and NMHC Relationships at Thompson Farm and Appledore Island during the ICARTT 2004 Campaign*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.
- Ambrose, J., H. R. Mayne, J. Stutz, R. Russo, Y. Zhou, R. K. Varner, L. C. Nielsen, M. White, O. W. Wingenter, K. Haase, **R. Talbot**, and B. C. Sive, *Nighttime Oxidation of VOCs at Appledore Island during ICARTT*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.
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- Zhou, Y. R, K. Varner, R. Russo, L. C. Nielsen, J. Ambrose, P. Veres, A. Enomoto, M. White, O. W. Wingenter, K. Haase, **R. Talbot**, and B. C. Sive, *Bromoform and Dibromomethane Measurements in the Seacoast Region of NH, 2002-2004*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.
- Nielsen, L. C., H. R. Mayne, Y. Zhou, R. Russo, R. K. Varner, **R. Talbot** and B. C. Sive, *PTR-MS measurements of VOCs at Thompson Farm and Appledore during the ICARTT 2004 Campaign*, ICARTT Data Analysis Workshop, Durham, NH, August 9-12, 2005.
- White, M., R. Russo, Y. Zhou, R. K. Varner, L. C. Nielsen, J. Ambrose, P. Veres, A. Enomoto, O. W. Wingenter, K. Haase, **R. Talbot** and B. C. Sive, *Nonmethane hydrocarbon measurements at Thompson Farm and Appledore Island: A comparison of relative reactivities*, ICARTT Data Analysis Workshop, Durham, NH, August 9-12, 2005.
- Csaki, A., R. Russo, Y. Zhou, R. K. Varner, L. C. Nielsen, J. Ambrose, P. Veres, A. Enomoto, O. W. Wingenter, K. Haase, **R. Talbot**, and B. C. Sive, *Summertime Measurements of Carbonyl Sulfide, Methyl Chloride and Methyl Bromide at Appledore Island*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.

- Jones, P., R. Russo, K. Francis, Y. Zhou, R. K. Varner, H. R. Mayne, **R. Talbot** and B. C. Sive, *Seasonal nonmethane hydrocarbon distributions at Thompson Farm, 2004*, ICARTT Data Analysis Workshop, Durham, NH, August 9-12, 2005.
- Francis, K., R. Russo, P. Jones, Y. Zhou, R. K. Varner, **R. Talbot**, and B. C. Sive, *Seasonal Halocarbon Distributions at Thompson Farm, 2004*, ICARTT Data Analysis Workshop, University of New Hampshire, Durham, NH, August 9-12, 2005.
- Talbot, R.**, *AIRMAP: Probing Climate and Air Quality Relationships in New England*, Atmospheric Sciences Seminar, Massachusetts Institute of Technology, Cambridge, MA, May 2005.
- Fischer, E. V., **R. Talbot**, A. A. P. Pszenny, and A. N. Grant, *Bulk aerosol measurements at Mount Washington: Seasonal cycles, elevated events, and relationships to air mass transport*, American Meteorological Society Meeting on Air Quality, San Francisco, CA, April 2005.
- Businger, S., R. Johnson and **R. W. Talbot**, 2005: *Applications for Smart Balloons in Atmospheric Research*, Poster presented at the EGU meeting, Vienna, Austria, April 2005.
- Fischer, E. V., **R. Talbot**, Jack. E. Dibb, A. A. P. Pszenny, and A. N. Grant, *Bulk aerosol measurements at Mount Washington: Seasonal cycles, elevated events, and relationships to air mass transport*, NOAA Climate Monitoring and Diagnostics Laboratory 35th Annual Meeting, Boulder, CO, April 20-21, 2005.
- Businger, S., R. Johnson, and **R. W. Talbot**, 2005: *Hurricane Balloons*, Interagency Hurricane Conference, Jacksonville, FL, March 2005.
- Talbot, R.**, *Climate and Air Quality in the Northeast*, NOAA National Marine Sanctuaries Program visit to University of New Hampshire, Durham, NH, April 7, 2005.
- Talbot, R.**, *Climate and Air Quality in the Northeast*, National Weather Service visit to University of New Hampshire, Durham, NH, March 8, 2005.
- Talbot, R.**, Invited Keynote Speaker - *Earth Systems Science on the Regional to Global Scale: From the Deep Sea to Airborne Research*, Dionex Corporation President's Dinner at the Peabody Hotel, Pittcon 2005, Orlando, FL, March 1, 2005.
- Talbot, R.**, *Targeted Wind Sensing Briefing*, NOAA Headquarters, Silver Spring, MD, February 3, 2005.
- Talbot, R.**, AIRMAP/COOA Retreat, Browne Center, University of New Hampshire, Durham, NH, January 14, 2005.
- Businger, S., R. Johnson, and **R. W. Talbot**, *Design and performance of smart balloons during the*

- 2004 AIRMAP campaign, The 85th American Meteorological Society (AMS) Annual Meeting, San Diego, CA, January 11, 2005.
- Sive, B., C. Nielsen, R. Griffin, R. Varner, Y. Zhou, P. Beckman, R. Russo, and **R. Talbot**, *Atmospheric VOC measurements at Thompson Farm and Appledore Island during the ICARTT 2004 summer campaign*, 2nd International Conference on Proton Transfer Reaction Mass Spectrometry and Its Applications, Obergurgl, Austria, January 2005.
- Mao, H., **R. Talbot**, D. Troop, S. Businger, and R. Johnson, *Understanding the impact of North American outflow on tropospheric O₃ over the North Atlantic Ocean: A case study during ICARTT 2004*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Talbot, R.**, D. Troop, H. Mao, B. Moore, R. Johnson, S. Businger, A. Hollingshead, and S. Beard, *Smart balloon observations of the distribution of tropospheric O₃ over the North Atlantic*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Sive, B. C., D. Troop, Y. Wang, O. W. Wingenter, R. Varner, Y. Zhou, R. S. Russo, C. Nielsen, and **R. W. Talbot**, *Deployment of a cryo-less GC system at Appledore Island for VOC measurements during the ICARTT 2004 campaign*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Nielsen, L., B. C. Sive, and **R. W. Talbot**, *PTR-MS measurements of atmospheric VOCs during the ICARTT 2004 campaign*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Varner, R. K., B. C. Sive, and **R. W. Talbot**, *Halocarbon distributions at Appledore Island, ME and Thompson Farm, Durham, NH during ICARTT 2004*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Voss, P. B., E. E. Riddle, D. Maczka, D., Holcomb, D., Washburn, K., **R. W. Talbot**, and A. Stohl, *Long-range urban plume transport during the ICARTT campaign: an analysis of Lagrangian balloon observations*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Chen, M., H. Mao, **R. W. Talbot**, and D. Pollard, *Climate trends and variability over North America predicted by a regional climate model for increased CO₂*, AGU Fall Meeting, San Francisco, CA, December 2004.
- Talbot, R.**, Guest Lecturer, *The AIRMAP program*, ENE 520 Environmental Pollution and Control class at the University of New Hampshire, October 19, 2004.
- Talbot, R.**, and H. Mao, AIRMAP, *Mapping New England's Changing Climate and Air Quality*, New Hampshire Department of Environmental Services, Concord, NH, October 1, 2004.
- Ziemba, L., **R. W. Talbot**, and R. J. Griffin, *Spatial and temporal trends in particle acidity in northern New England*, American Association for Aerosol Research Annual Meeting,

- Atlanta, GA, October 2004.
- Talbot, R.**, *Factors regulating regional air quality in New England*, High/Middle School Science Teachers' AIRMAP Workshop at UNH in coordination with The Joan and James Leitzel Center for Mathematics, Science, and Engineering Education, University of New Hampshire, July 26, 2004.
- Talbot, R.**, Speaker at ICARTT Press Conference with Senator Gregg, Vice Admiral Lautenbacher (NOAA), and Dr. Ghassem Asrar (NASA), July 26, 2004.
- Talbot, R.**, *O₃ measurements from the Smart Balloon during ICARTT*, ICARTT Mid-Campaign Science Meeting, Holloway Commons, University of New Hampshire, Durham, NH, July 24, 2004.
- Talbot, R.**, *Tracking Air Quality in New England: Satellites, Planes, Balloons, Ships and Towers*, Seacoast Science Center, Rye, NH, July 13, 2004.
- Fischer, E. V., **R. W. Talbot**, J. E. Dibb, J. L. Moody, and G. Murray, *Meteorological controls on ozone at Mount Washington, the highest peak in the northeastern United States*, American Meteorological Society, 11th Conference on Mountain Meteorology, Mt. Washington Valley, New Hampshire, June 21-25, 2004.
- Mao, H., R. Griffin, **R. Talbot**, B. Sive, R. Varner, and M. Chen, *Coupled measurement-modeling approach to improve biogenic emission estimates: Application to Future Air Quality Assessments—field measurement component*, EPA Star Annual Meeting, Research Triangle Park, NC, May 2004.
- Talbot, R.**, *AIRMAP and ICARTT summer 2004 campaign*, Ozone Transport Commission, Linthicum, MD, March 15, 2004.
- Talbot, R.**, *AIRMAP and air quality in New England: ICARTT summer 2004 campaign*, Cisco Systems, Boxborough, MA, February 18, 2004.
- Angevine, W. M., C. Senff, A. White, and **R. Talbot**, *Coastal boundary layer influence on pollutant transport in New England*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Mao, H. and **R. Talbot**, *Regional relationship between CO and O₃ in New England*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Carpenter, K. B., **R. Talbot**, and H. Mao, *Evaluating NO_x/NO_y ratio as a method for determining long range vs. short range pollution events in New England*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Tang, Y., G. R. Carmichael, J. H. Seinfeld, D. Dabdub, R. J. Weber, B. Huebert, A. D. Clarke, S. A. Guazzotti, K. A. Prather, D. A. Sodeman, I. Uno, J.-H. Woo, D. G. Streets, P. Quinn, J. E.

- Johnson, C.-H. Song, T. L. Anderson, A. Sandu, **R. W. Talbot**, and J. E. Dibb, *Dust, aerosols and their interactions with gaseous species in East Asia during spring 2001: A three-dimensional model study*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Carmichael, G. R., Y. Tang, J. H. Seinfeld, D. Dabdub, R. J. Weber, B. Huebert, A. D. Clarke, S. A. Guazzotti, K. A. Prather, D. A. Sodeman, I. Uno, J.-H. Woo, D. G. Streets, P. Quinn, J. E. Johnson, C.-H. Song, T. L. Anderson, A. Sandu, **R. W. Talbot**, and J. E. Dibb, *The need for closer integration of measurements and models – results from modeling aerosols in the East Asia outflow*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Rawlins, W. T., J. A. Pople, P. A. Mulhall, M. S. Twickler, and **R. W. Talbot**, *Surface-level ozone variability in the coastal marine boundary layer measured in the Gulf of Maine on a commercial ferry during NEAQS 2002*, AGU Fall Meeting, San Francisco, CA, December 2003.
- DeBell, L. J., **R. W. Talbot**, J. W. Munger, J. E. Dibb, E. V. Fischer, and S. E. Frolking, *A major regional air pollution event in the northeastern U.S. caused by extensive forest fires in Quebec, Canada*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Dibb, J. E., E. Scheuer, S. I. Whitlow, M. Vozzella, and **R. W. Talbot**, *Measurements of HNO_3 on the NOAA research vessel Ronald H. Brown during NEAQS 2002*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Talbot, R.**, H. Mao, and B. Sive, *Diurnal characteristics of surface-level O_3 and other trace gases in New England*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Sive, B. C., Y. Zhou, R. S. Russo, and **R. W. Talbot**, *Propane and light alkene enhancements at Thompson Farm: Impact on local and regional ozone production*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Fischer, E. V., **R. W. Talbot**, J. L. Moody, J. E. Dibb, and C. P. Wake, *Meteorological controls on ozone at two high-elevation monitoring sites in New Hampshire*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Russo, R. S., B. C. Sive, Y. Zhou, and **R. W. Talbot**, *Nonmethane hydrocarbon and alkyl nitrate distributions at a rural site in New Hampshire*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Zhou, Y., B. C. Sive, and **R. W. Talbot**, *Occurrences and implications of marine air tracers at Thompson Farm*, AGU Fall Meeting, San Francisco, CA, December 2003.
- Talbot, R.**, *AIRMAP and Targeted Wind Sensing Programs at UNH*, The North American THORPEX Science Team Meeting, University of Maryland, College Park, MD, August 14, 2003.

Talbot, R., *AIRMAP investigations of air quality and climate in New England*, The New Hampshire Legislative Committee on Science and Technology, University of New Hampshire, Durham, NH, June 2003.

Talbot, R., *The nocturnal inversion and diurnal cycles of O₃ and CO*, NOAA science team workshop for the 2002 New England Air Quality Study, University of New Hampshire, Durham, NH, May 2003.

Rawlins, T., **R. Talbot**, and M. Twickler, *Surface-level ozone variability/coastal marine boundary layer*, NOAA science team workshop for the 2002 New England Air Quality Study, University of New Hampshire, Durham, NH, May 2003.

Heald, C. L., D. J. Jacob, A. M. Fiore, L. Emmons, J. C. Gille, D. J. Westberg, J. H. Crawford, G. W. Sachse, E. V. Browell, M. A. Avery, S. A. Vay, D. R. Blake, H. B. Singh, S. T. Sandholm, and **R. W. Talbot**, *Continental outflow, transpacific transport, and chemical evolution of Asian pollution observed from satellite and aircraft*, EGS-AGU Joint Assembly, Nice, France, April 2003.

Talbot, R., *AIRMAP research on the summit of Mount Washington*, Mount Washington Observatory spring event with Columbia astronaut Dr. Jay Buckley, Jr., Durham, NH, April 2003.

Talbot, R., *The 2004 New England Air Quality Study: Science Objectives*, University of New Hampshire, Durham, NH, April 2003.

Talbot, R., *The 2004 New England Air Quality Study: Modeling and data analysis*, University of New Hampshire, Durham, NH, April 2003.

Talbot, R., and H. Mao, *2002 AIRMAP highlights and the New England Air Quality Study*, MARAMA/MANVU Air Quality Meeting, Baltimore, MD, January 21-22, 2003.

Talbot, R., *Highlights of the 2002 New England Air Quality Study and applications in high school science curriculum*, Forest Watch Program (New England High School Science Teachers), University of New Hampshire, December 2002.

Jordan, C. E., B. Anderson, C. Hudgins, E. Winstead, L. Thornhill, **R. Talbot**, R. Russo, E. Scheuer, G. Seid, J. Dibb, and H. Fuelberg, *Chemical and physical properties of bulk aerosols observed during TRACE-P: Evidence of nitrate uptake on dust particles*, AGU Fall Meeting, San Francisco, CA, December 2002.

Thompson, A., M. Chin, D. Davis, C. Song, R. Weber, J. Dibb, **R. Talbot**, A. Bandy, D. Thornton, B. Huebert, and B. Blomquist, *Model analysis of sulfate and SO₂ over the Asian-Pacific region during Spring 2001: Sources, distributions, and intercontinental transport*, AGU Fall Meeting, San Francisco, CA, December 2002.

- Tan, D., S. Sandholm, J. Mastromarino, **R. Talbot**, M. Avery, G. Sachse, H. Harder, M. Martinez, W. Brune, R. Shetter, and H. Fuelberg, *On NO_x evolution in the Pacific during TRACE-P*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Chatfield, R. B., H. B. Singh, A. Fried, M. J. Evans, D. J. Jacob, D. Blake, B. Heikes, **R. W. Talbot**, and G. W. Sachse, *Oxygenated organic chemicals in the Pacific troposphere: Sources and chemical consequences*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Crawford, J. H., J. Olson, D. D. Davis, G. Chen, G. Sachse, D. Blake, R. Shetter, B. Lefer, Y. Kondo, S. Sandholm, D. Tan, M. Avery, H. Singh, F. Flocke, F. Eisele, M. Zondlo, **R. Talbot**, D. Thornton, and A. Bandy, *Clouds and trace gas trends observed during TRACE-P*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Olson, J., J. Crawford, D. Davis, G. Chen, W. Brune, H. Harder, M. Martinez, F. Eisele, L. Mauldin, C. Cantrell, A. Fried, J. Walega, B. Heikes, Y. Kondo, D. Tan, S. Sandholm, R. Shetter, B. Lefer, G. Sachse, M. Avery, J. Barrick, D. Blake, H. Singh, F. Flocke, and **R. Talbot**, *Testing fast photochemical theory during TRACE-P based on measurements of OH, HO_2 , NO_2 , and CH_2O* , AGU Fall Meeting, San Francisco, CA, December 2002.
- Hamlin, A., J. Crawford, J. Olson, M. Pippin, M. Avery, G. Sachse, J. Barrick, D. Blake, D. Tan, S. Sandholm, Y. Kondo, H. Singh, F. Eisele, M. Zondlo, F. Flocke, and **R. Talbot**, *Chemical evolution of ozone and its precursors in Asian Pacific Rim during TRACE-P*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Kittaka, C., R. B. Pierce, J. H. Crawford, M. H. Hitchman, D. R. Johnson, G. J. Tripoli, M. Chin, A. R. Bandy, R. J. Weber, **R. W. Talbot**, B. E. Anderson, and E. V. Browell, *A model study on sulfate transport for the TRACE-P period using RAQMS*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Murphy, J. G., J. A. Thornton, P. J. Wooldridge, D. A. Day, R. S. Rosen, R. C. Cohen, C. A. Cantrell, B. Lefer, R. Shetter, and **R. W. Talbot**, *Observations of peroxy nitrates in the remote troposphere*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Dibb, J. E., **R. W. Talbot**, E. Scheuer, G. Seid, M. Avery, and H. Singh, *Aerosol chemical composition in Asian continental outflow during TRACE-P: Comparison to PEM-West B*, AGU Fall Meeting, San Francisco, CA, December 2002.
- O'Sullivan, D. W., B. G. Heikes, J. Snow, P. Burrow, M. Avery, D. R. Blake, G. W. Sachse, and **R. W. Talbot**, D. C. Thornton, and A. R. Bandy, *Long-term variations in the levels of hydrogen peroxide, methylhydroperoxide, and selected compounds over the Pacific Ocean*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Eisele, F. L., L. Mauldin, C. Cantrell, E. Apel, A. Fried, R. Shetter, F. Flocke, A. Weinheimer, M.

- Avery, S. Vay, G. Sachse, H. Singh, W. Brune, A. Bandy, B. Heikes, Y. Kondo, D. Riemer, S. Sandholm, D. Tan, **R. Talbot**, and J. Dibb, TRACE-P informal instrument intercomparison, AGU Fall Meeting, San Francisco, CA, December 2002.
- DeBell, L. J., M. E. Vozzella, **R. W. Talbot**, and J. E. Dibb, *Asian dust storm events of 2001 and associated pollution observed in New England by the AIRMAP monitoring network*, AGU Fall Meeting, San Francisco, CA, December 2002.
- Browell, E. V., J. W. Hair, C. F. Butler, W. B. Grant, R. J. DeYoung, M. A. Fenn, V. G. Brackett, M. B. Clayton, L. A. Brasseur, D. B. Harper, B. A. Ridley, A. A. Klonecki, P. G. Hess, L. K. Emmons, X. Tie, E. L. Atlas, C. A. Cantrell, A. J. Wimmers, D. R. Blake, M. T. Coffey, J. W. Hannigan, J. E. Dibb, **R. W. Talbot**, F. Flocke, A. J. Weinheimer, A. Fried, B. Wert, J. A. Snow, and B. Lefer, Ozone, aerosol, potential vorticity, and trace gas trends observed at high-latitudes over North America from February to May 2000, 7th Scientific Conference of the International Atmospheric Chemistry Project (IGAC), Crete, Greece, Sept. 18-25, 2002. (Abstracts volume, pp. 210-211, 2002.)
- Talbot, R.**, *Application of Advanced Technologies in Atmospheric Sciences, New Technologies in Environmental Work*, New England Board of Higher Education, Bethel, Maine, August 2002.
- Talbot, R. W.**, *AIRMAP: An update on the NOAA Cooperative Institute's initiatives*, NH Senator Judd Gregg's staff, Institute for the Study of Earth, Oceans, and Space, Durham, NH, June 2002.
- Wang, Y, C. Shim, N. Blake, D. Blake, B. Ridley, J. Dibb, A. Wimmers, F. Flock, A. Weinheimer, **R. Talbot**, and E. Atlas, Springtime ozone sources at northern mid and high latitudes: An analysis based on TOPSE observations, AGU Spring Meeting, Boston, MA, May 2002.
- Mao, H., and **R. W. Talbot**, 2002: *On the mechanisms of high O₃ occurrence at a rural site*, Proceedings of the 82nd American Meteorological Society Annual Meeting, Orlando, Florida, January 13-17, 2002.
- Talbot, R. W.**, *AIRMAP: Mapping New England's changing climate and air quality*, Meet the Scientist's Meeting, New England Science Center representatives and docents, Institute for the Study of Earth, Oceans, and Space, Durham, NH, November 27, 2001.
- Talbot, R. W.**, *The New England Airshed: A challenging environment for coupling measurement and modeling*, Graduate student seminar series, Institute for the Study of Earth, Oceans, and Space, Durham, NH, October 2001.
- Talbot, R. W.**, *Public policy perspectives at the summit*, Northeast Legislative Leaders/Constitutional Officers/Northeast Toll Fellows Forum, Tip Top House on the summit of Mount Washington, August 28, 2001.

- Talbot, R. W.**, *AIRMAP: An update on The NOAA Cooperative Institute's initiatives*, NH Senator Judd Gregg's staff, Institute for the Study of Earth, Oceans, and Space, Durham, NH, June 2001.
- Dibb, J. E., **R. W. Talbot**, G. Seid, E. Scheuer, L. DeBell, B. Lefer, and B. Ridley, *Stratospheric influence on the northern North American free troposphere during TOPSE: ^7Be as a stratospheric tracer*, AGU Spring Meeting, Boston, MA, May 2001.
- Emmons, L., A. Klonecki, X. Tie, D. Kinnison, L. Horowitz, S. Madronich, E. Atlas, B. Ridley, C. Cantrell, F. Flocke, **R. Talbot**, J. Dibb, B. Heikes, M. Coffey, R. Cohen, D. Blake, A. Weinheimer, A. Fried, L. Mauldin, R. Shetter, J. Hannigan, W. Mankin, J. Snow, and J. Walega, *Simulating the TOPSE campaign: Review of key results from two chemical transport models*, AGU Spring Meeting, Boston, MA, May 2001.
- Scheuer, E., **R. W. Talbot**, J. E. Dibb, G. Seid, L. DeBell, and B. Lefer, *Large-scale distributions of fine aerosol sulfate in the North American Arctic basin during TOPSE*, AGU Spring Meeting, Boston, MA, May 2001.
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- Talbot, R. W.**, H. Mao, J. Dibb, C. Wake, M. Prentice, and B. Keim, *Atmospheric Investigation, Regional Modeling, Analysis and Prediction*, Semi-annual technical report to Office of

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Andren, A. W., N. Loux, **R. W. Talbot**, and M. Anderson, *Aquatic impacts around a coal-fired steam plant*. Ecological Research Series. EPA-600/3-80-044, 1980.

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Andren, A. W., M. Anderson, **R. W. Talbot**, and N. Loux, Aquatic chemistry. In: *Documentation of Environmental Change Related to the Columbia Electric Generating Station*. Eleventh Semi-Annual Report to the U.S. EPA. December, 1977.

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CURRENTLY FUNDED RESEARCH PROJECTS

NASA - *Measurements and Analysis of Atmospheric Mercury Observations Aboard the DC-8 During ARCTAS*, \$478,530, January 2008 – December 2012 (R. Talbot & H. Mao PIs).

National Science Foundation – Atmospheric Chemistry Division: *Mercury Cycling in the Marine Environment*, \$530,268, 01 Dec. 2008 – 30 Nov. 2012 (H. Mao & R. Talbot PIs).

Environmental Protection Agency, Headquarters Procurement Operations Division: *A Speciated Atmospheric Mercury Monitoring Site at Thompson Farm, New Hampshire*, \$699,363, 01 December 2008 – 30 November 2012, (R. Talbot & H. Mao PIs).

NOAA – Oceanic and Atmospheric Research, AIRMAP, *A UNH Air Quality and Climate Program*, \$25,000, 01 Sept. 2010 – 31 Aug. 2012 (R. Talbot PI).

National Science Foundation – Atmospheric Chemistry Division: *Reno Atmospheric Mercury Intercomparison Experiment (RAMIX)*, \$178,154, 01 April 2011 – 31 March 2013 (R. Talbot PI).

PENDING RESEARCH PROJECTS

NASA - Regional-to-Hemispheric Scale Impacts Related to Highly Polluted Air Exported from the South-Central U.S., \$963,500 (R. Talbot PI).

NSF - What are the chemical and physical characteristics of GOM and Hg^p in the ambient atmosphere? \$700,000 (R. Talbot PI).

Texas Air Research Center - De-Convoluting Major Sources of the Greenhouse Gases CO₂ and CH₄ and Mercury in Texas, \$100,000 (R. Talbot PI).

Welch Foundation - Chemical Ionization Mass Spectrometry: A New Tool to Quantify Atmospheric Reactive Mercury Species, \$150,000 (R. Talbot PI).

NASA - Evaluation of sources, cycling and chemical transformations of mercury in the United States, Ph.D. Fellowship Dara Feddersen \$90,000 (R. Talbot PI).

NASA - Improvement of regional model simulations of atmospheric mercury using a suite of ground, airborne, and space observations, Earth Systems Ph.D. Fellowship Xin Lan, \$90,000 (R. Talbot PI).

CONSULTING PROJECTS

NASA and Physical Sciences, Inc., Phase II program, *Laser-based Sensor for Routine, High Precision, Field Measurements of Ambient CO₂*.

NASA and Physical Sciences, Inc., *A Quantum Cascade Laser System for Trace Gases Aboard the NASA DC-8 Research Aircraft (Phase II SBIR)*.

RECENT COLLABORATORS

B. E. Anderson - NASA Langley Research Center

R. Arimoto - University of New Mexico

E. Atlas – University of Miami

D. R. Blake - University of California - Irvine

N. J. Blake - University of California - Irvine

E. V. Browell - NASA Langley Research Center

W. H. Brune - Penn State

S. Businger – University of Hawaii

W. Chameides - Georgia Tech

G. Chen – NASA Langley Research Center

J. H. Crawford - NASA Langley Research Center

D. D. Davis - Georgia Tech

J. Ferreira, Jr. – MIT
F. Feshenfeld – NOAA ESRL
J. Fishman - NASA Langley Research Center
F. Flocke - NCAR
R. Fu – Georgia Tech
H. Fuelberg - Florida State University
R. Griffin – University of New Hampshire
B. G. Heikes - University of Rhode Island
G. Huey – Georgia Tech
D. J. Jacob - Harvard University
R. Johnson – NOAA, Air Resources Laboratory, Field Research Division
C. Jordan – NASA Langley Research Center
G. Kleiman - NESCAUM
O. Klemm - University of Munster (Germany)
M. Koike - Nagoya University (Japan)
C. E Kolb - Aerodyne, Inc.
Y. Kondo - Nagoya University (Japan)
B. K. Lamb - University of Washington
B. L. Lefer – University of Houston
S. C. Liu – Research Center for Environmental Change (Taiwan)
J. A. Logan - Harvard University
W. T. Luke - NOAA Air Resources Laboratory
H. Mao – SUNY - Environmental Sciences & Forestry
G. J. McRae – MIT
J. Meagher – NOAA ESRL
J. Merrill - University of Rhode Island
J. W. Munger - Harvard University
J. Rodriguez – University of Miami
F. S. Rowland - University of California - Irvine
G. W. Sachse - NASA Langley Research Center
S. T. Sandholm - Georgia Tech
E. M. Scheuer - University of New Hampshire
M. G. Schultz – Max Planck Institute
H. B. Singh - NASA Ames Research Center
B. C. Sive – University of New Hampshire
R. Swap - University of Virginia
A. Tabazadeh - NASA Ames Research Center
A. M. Thompson – Penn State University
D. C. Thornton - Drexel University
P. Voss – Smith College
Y. H. Wang – Georgia Tech

MEDIA MENTIONS RELATED TO MY RECENT RESEARCH

2009

- [Fall 2009](#) – Quantifying quicksilver: At the head of the pack, EOS Spheres, Top Story http://www.eos.unh.edu/Spheres_1109/index.shtml

2008

- [10 September](#) – Making wind to track air quality (UNH Campus Journal)
- [13 August](#) – UNH unveils new atmospheric observatory (Union Leader)
- [12 August](#) – Gregg opens UNH state-of-the-art air monitoring facility (Seacoast Online)
- [12 August](#)– Gregg tours new UNH research facility (Foster's Daily Democrat)
- [11 August](#) – Gregg opens new UNH air monitoring facility (Seacoast Online)
- [11 August](#) – UNH atmospheric observatory opens (WMUR TV)
- [April 1](#) – UNH Scientists Aloft as Part of Major NASA Airborne Arctic Study (http://www.unh.edu/news/cj_nr/2008/April/ds1arctic.cfm)
- [25 March](#)- UNH tests the air with AIRMAP research: *Do you know where your air has been?* (The New Hampshire, UNH)

2007

- [Fall Issue](#)- Winds of Change: *Seeing the big picture with the help of alternative energy* (EOS Spheres)
- [14 November](#)- Land can emit methyl iodide too (environmental research web)
- [30 August](#)- Sustained, Sustainable, Atmospheric Research At UNH (Seacoast Online)
- [22 August](#)- Sustained, Sustainable, Atmospheric Research At UNH (UNH Media Relations)
- [9 August](#)- "Small" Science Puts UNH In Select League (UNH Media Relations)
- [6 August](#)- Island location makes Shoals an ideal case study in sustainability—from wind power to composting (Cornell University Chronicle Online)

2006

- [26 September](#)- "Smart" Balloons Carrying UNH-Built Ozone Instrument Probe Gulf of Mexico Air (NOAA News Online – Top Story)

- [26 September](#)- "Smart" Balloons Carry UNH Instruments (Foster's Daily Democrat)
- [21 September](#)- UNH Equipment Aloft to Measure Air Pollution (Boston Globe/boston.com)
- [21 September](#)- "Smart" Balloons Carrying UNH-Built Ozone Sensor Probe Gulf of Mexico Air (UNH Media Relations)
- [14 July](#)- U.S. Senate Committee Approves \$4.5 Million for N.H. Weather Projects (Foster's Daily Democrat)
- [13 July](#) - Senator Gregg Announces \$4.5 Million for New Hampshire Regional Air Quality Research and Forecasting Efforts Moving Through Senate (Office of Senator Judd Gregg- Press Releases)
- [31 May](#) - The Best Road Condition Info You'll Never Know About (Nashua Telegraph)
- [24 May](#) - UNH Miniature Ozone Sensors Now Part of State's Road Weather Information System (UNH Media Relations)
- [21 January](#) - Governor Visits the Roof of NH (The Union Leader)

2005

- [29 December](#) - UNH Scientists Present Air Quality Research (Foster's Daily Democrat)
- [16 December](#) - UNH Researchers' Air Quality Study Shows High Ozone Levels Over North Atlantic (Foster's Daily Democrat)
- [12 December](#) -UNH Scientists Present Findings from Huge Summer 2004 Air Quality Study at American Geophysical Union Meeting in San Francisco (UNH Media Relations)
- [17 August](#) - A First Draft of Research...with Poster Board (Nashua Telegraph)
- [4 August](#) - Scientists Gather at UNH to Discuss Initial Findings of Massive 2004 Air Quality Study (UNH Media Relations)
- [2 July](#) - Projects at UNH Set to Get \$11.5 Million (Foster's Daily Democrat)
- [23 January](#) - Many are Having a Hard Time Coping with this Winter (Foster's Sunday Citizen)
- [Winter 2005](#) - Air Heads (University of New Hampshire Magazine, Volume 7, #2, pp.28-32)

2004

- [13 December](#) - UNH Supercomputer to Probe Earth, Space (Union Leader)

- [10 December](#) - Microway to Provide AMD Opteron Cluster to UNH Institute (HPCwire, A High Performance Computing Newsletter)
- [9 December](#) - UNH to Acquire Supercomputing Cluster (UNH Media Relations)
- [23 September](#) - UNH 'Smart Balloon' Ends Research Mission (Foster's Daily Democrat)
- [7 September](#) - Tracking Pollution, The News Hour with Jim Lehrer (NH Public Television and Maine PBS)
- [3 September](#) - Survey Says Poor Air Quality Lowers Worker Productivity (Dover Community News)
- [3 September](#) - UNH Ozone Instrument on Balloon Ride Across Globe (UNH Campus Journal)
- [3 September](#) - Poor Air Quality Lowers Worker Productivity (UNH Campus Journal)
- [2 September](#) - Pollution from Asia Found Over New England (New Hampshire Public Radio)
- [September/October](#) - International Air Quality Study Launched from New Hampshire (The Seacoast Sun: Notes and News from the Seacoast Science Center, Volume 11, No. 5)
- [30 August](#) - UNH Study Links Declining Worker Productivity to Poor Air Quality (Foster's Daily Democrat)
- [30 August](#) - UNH Links Air Quality, Lower Productivity (Portsmouth Herald)
- [30 August](#) - UNH Study Links Declining Productivity to Bad Air Days (Union Leader)
- [29 August](#) - UNH Links Declining Worker Productivity to Poor Air Quality (CBS 4: Boston, MA; WMUR Channel: NH; TheChamplainChannel.com)
- [26 August](#) - High-Tech Atmospheric Research Balloon Carrying Unique Ozone Instrument Trots Globe (UNH Media Relations)
- [26 August](#) - NASA to Track N. American Air Pollution (Science Blog)
- [26 August](#) - UNH Device Completes Trans-Atlantic Balloon Ride, Ozone Detector Drifts in Air Masses (WMUR Channel: NH)
- [25 August](#) - Going with the Flow (NASA)
- [23 August](#) - UH Scientist Hails Flight of Pollution-Monitoring Balloon (Honolulu Star-Bulletin Hawaii News)
- [23 August](#) - Poor Air quality Lowers Worker Productivity in New England (Newswise)

- [19 August](#) - Poor Air Quality Lowers Worker Productivity in New England (UNH Media Relations)
- [12 August](#) - Air Pollution Blowing Across Continents (The Straits Times Interactive: Singapore, China)
- [12 August](#) - Environmental Pollution Blowing Across Continents, Say Scientists (Vietnam News Agency: Hanoi, Vietnam)
- [12 August](#) - Major Air Quality Investigation Puts Focus on Seacoast (Hampton Union Local News)
- [11 August](#) - Pollution from Asia Now Showing Up in N.H. Air (Portsmouth Herald)
- [9 August](#) - Asian Grit Aloft in New England (Boston Globe; International Herald Tribune: France; Phillyburbs.com; The Intelligencer; Burlington County Times; Bucks County Courier Times; Akron Beacon Journal, OH; Newsday; Macon Telegraph, GA; Siliconvalley.com; Los Angeles Times, CA; Wilkes-Barre Times Leader, PA; ABC News; Times Picayune, LA; Fort Wayne Journal Gazette, IN; Fort Worth Star Telegram, TX; Columbus Ledger-Enquirer, GA; Duluth News Tribune, MN; Myrtle Beach Sun News, SC; Grand Forks Herald, ND; San Luis Obispo, CA; Charlotte Observer, NC; Tallahassee Democrat, FL; Kansas City Star; Biloxi Sun Herald, Biloxi, MS; Bradenton Herald, FL; Pioneer Press, MN; Miami Herald, FL; Monterey County Herald, CA; Centre Daily Times, PA; Wilmington Morning Star, NC; Times Daily, AL; Seattle Post Intelligencer, WA; The Ledger, FL; Worcester Telegram, MA; Tuscaloosa News, AL; Yahoo.com; dailycomet.com)
- [8 August](#) - NOAA Tracks Plume Across Atlantic Ocean (The Daily Camera: Boulder, CO)
- [6 August](#) - Atmospheric Research Lauded by Gregg: Midpoint of air quality study marked (UNH Campus Journal)
- [5 August](#) - Blowing in the Wind: Transatlantic Pollution (The Christian Science Monitor)
- [2 August](#) - University of Iowa Assists Air Quality Research (WOI-TV, Eyewitness News: Des Moines, IA)
- [2 August](#) - Airborne Air Lab Measures Pollution in Maine (AP WIRE)
- [2 August](#) - Airborne Air Lab Measures Pollution Around New England (Foster's Daily Democrat)
- [1 August](#) - Tracking America's Tailpipe (Portland Press Herald)
- [30 July](#) - Ship in Gulf of Maine for Pollution Study (WMTW, Channel 8: Portland, Maine)

- [27 July](#) - Air Check!The Exchange with Laura Knoy (New Hampshire Public Radio)
- [27 July](#) - Global Voyage Begins to Study Air Quality (The New York Times; Kentucky.com, KY; Worcester Telegram, MA; Fort Worth Star Telegram, TX; Fort Wayne Journal Gazette, IN; Tallahassee Democrat, FL; San Luis Obispo Tribune, CA; Fort Wayne News Sentinel, IN; The Ledger, FL; Myrtle Beach Sun News, SC; Duluth News Tribune, MN; Macon Telegraph, GA; Tallahassee.com, FL; Columbus Ledger-Enquirer, GA; Centre Daily Times, PA; Biloxi Sun Herald, MS; phillyburbs.com, PA; SiliconValley.com; philly.com, PA; Grand Forks Herald, ND; Monterey County Herald, CA; Pioneer Press, MN; Wilkes-Barre Times-Leader, PA; Times Daily, AL; Akron Beacon Journal, OH; Los Angeles Times, CA; Miami Herald, FL; Charlotte Observer, NC; Bradenton Herald, FL; Kansas.com, KS; Tuscaloosa News, AL; ABC News; Yahoo News; Kansas City Star, MO; Newsday, NY; Seattle Post Intelligencer, WA)
- [27 July](#) - Tracking Global Air Pollution (Portsmouth Herald)
- [27 July](#) - Landmark Air Quality Study Marks its Halfway Point (MSNBC)
- [26 July](#) - Landmark Air Quality Study Marks Its Halfway Point (Union Leader)
- [26 July](#) - Air Quality Study Floats to Second Phase (WNNE-TV: VT)
- [26 July](#) - Largest Air Quality, Climate Study Offers New Insights On... (NOAA)
- [26 July](#) - Atmospheric Research at UNH Lauded by Senator Gregg; Midpoint of Large-scale Air Quality Study Marked (UNH Media Relations)
- [26 July](#) - Tracking Global Air Pollution: UNH Scientists Hope Team's Work Will Aid Environment, Improve Forecasts (Portsmouth Herald)
- [26 July](#) - Air Quality Forecasts Lie Ahead in Success of UNH Test Balloon (Foster's Daily Democrat)
- [26 July](#) - Second Phase Underway in Air Quality Study (The Boston Globe; Foster's Daily Democrat)
- [26 July](#) - Air Quality Study Floats to Second Phase: Boat to Analyze Air Masses from West Coast (WMUR Channel: NH)
- [22 July](#) - National Center for Atmospheric Research Chemists to Help Profile New England's Air Quality (NCAR)
- [16 July](#) - Media Advisory...news conference for New England Air Quality Study, part of the International Consortium for Atmospheric Research on Transport and Transformation (ICARTT) study (NOAA)
- [16 July](#) - US Pollutants Could Damage European Environment (Environmental Data Interactive: UK)

- [15 July](#) - Canadian Scientists Take Part in Major International Study on Air (Government of Canada Newsroom)
- [15 July](#) - NASA, NOAA and New Hampshire Officials Discuss Key Air Quality (NASA)
- [15 July](#) - Flying Labs Aim to Track Pollution Across the Atlantic (Nature, Volume 430)
- [12 July](#) - Scientists to Test Area's Air Quality (Tribune-Review, PittsburghLIVE.com)
- [12 July](#) - Media Advisory – Canadian Scientists Take Part in Major... (CNW Telbec (Communiqués de presse): Canada)
- [12 July](#) - Gone With the Wind? Over A Hundred Scientists Take to the Skies to Track Global Air Pollution (Innovations-Report, Germany; Natural Environment Research Council Centres for Atmospheric Science: Swindon, UK)
- [11 July](#) - Scientists to Test Area's Air Quality (Pittsburgh Tribune-Review, PA)
- [9 July](#) - UNH at Center of Largest-Ever Air Quality Study (UNH Campus Journal)
- [2 July](#) - Large-Scale Air Quality Study Launched, Scientists Will Examine How Pollutants Move Across Continent, Atlantic Ocean (The Washington Post)
- [1 July](#) - Seacoast Air Quality Study Under Way (Foster's Online)
- [30 June](#) - NASA Helps Track Global Air Quality (Science Daily)
- [30 June](#) - Largest-Ever Air Quality Study Poised to Begin in Seacoast, NH (Innovations-Report, Germany)
- [30 June](#) - Largest-Ever Air Quality Study to Launch July 5 (Energy Argus Daily, Vol. 11, No. 123, Argus Media, Ltd)
- [30 June](#) - Air Pollution, Major Research Program May Shed Light on Long-Range Transport Issue (Greenwire)
- [30 June](#) - NASA Helps Track Global Air Quality (Spatial News; EurekAlert)
- [29 June](#) - Largest-Ever Air Quality Study Poised to Begin in Seacoast, NH (Newswise; EurekAlert)
- [29 June](#) - DOE Scientists Sample the Skies (Brookhaven National Laboratory News Release)
- [28 June](#) - Largest-Ever Air Quality Study Poised to Begin in Seacoast N.H., Hundreds of Scientists Will Participate, Research Platforms Will Be Deployed (UNH Media Relations)
- [28 June](#) - NASA Helps Track Global Air Quality (Space Ref; NASA)

- [28 June](#) - ...The INTEX-NA mission is coordinated under the International Consortium for Atmospheric Research on Transport and Transformation (ICARTT) (Science, guide KA.Cassimally, Zongoo!com, United States)
- [Spring](#) - Centers of Excellence (University of New Hampshire Magazine)
- [Spring](#) - Bad Air in a Bag (University of New Hampshire Magazine)
- [11 June](#) - Moore Receives NOAA Recognition Award (UNH Campus Journal)
- [21 May](#) - Spring is the Time to Fight for Cleaner Air and Healthier Children (Foster's Daily Democrat)
- [7 May](#) - Gregg Hall is Officially Dedicated to Senator (UNH Campus Journal)
- [21-27 April](#) - In Brief, This week at UNH (The Wire: Portsmouth, NH)
- [16 April](#) - Air Quality Study to Pinpoint Pollution Sources (The New Hampshire, UNH)
- [22 March](#) - UNH to Lead Biggest Study of Air Quality & Climate (NH Public Radio)
- [19 March](#) - UNH at Center of Nation's Biggest Air-Quality Study (Union Leader)
- [19 March](#) - UNH to Conduct Largest-Ever Air Study (Foster's Daily Democrat)
- [18 March](#) - UNH to Study Air Pollution Sources, Study Involves Planes, Balloons, Satellites (WMUR Channel, NH)
- [18 March](#) - Sen. Gregg, NOAA Chief and UNH President Announce Largest-ever Air Quality/Climate Study to Begin This Summer (UNH Media Relations)
- [18 March](#) - Gregg Joins UNH Scientists to Announce Next Phase of New England Air Quality Study, Senator, Researchers Also Announce Launch of Air Quality Forecasts (Senator Judd Gregg News Releases)
- [15 March](#) - MEDIA ADVISORY: Senator Gregg, NOAA Administrator, and UNH President to Announce Biggest Air Quality-Climate Study Ever Undertaken (UNH Media Relations)
- [13 March](#) - UNH Part of \$9M Air Quality Study (Foster's Daily Democrat)
- [26 February](#) - N. H. Offers Clues to Improving Air, International Research Slated (Boston.com)

2003

- [11 December](#) - Plymouth State University Dedicates "Judd Gregg Meteorology Institute" in Boyd Science Center (Senator Judd Gregg News Releases)

- [21 August](#) - Gregg Presents Federal Funds to PSU Meteorology (Record Enterprise, Plymouth, NH)
- [13 August](#) - PSC Program Receives Half-Million Dollar Boost: Grant Will Pay for Weather Research (Foster's Daily Democrat)
- [24 July](#) - UNH Gets \$4.3 Million for Atmospheric Monitoring Program (Foster's Daily Democrat)
- [19 July](#) - UNH Gets Grant for Air Quality Research (Union Leader)
- [18 July](#) - Senator Gregg Secures \$4.355 Million for Expansion of UNH Air Quality Research Program (Office of Senator Judd Gregg)

2002

- [29 October](#) - Funding for UNH Research Hits \$85.8 Million (UNH News Bureau)
- [Fall](#) - Visit from a Floating Lab (University of New Hampshire Magazine)
- [30 September](#) - UNH to Launch Air Quality Study (Foster's Daily Democrat)
- [25 September](#) - Gregg and UNH Announce Regional Study of Impact of Air Quality on Pulmonary Health in Children (UNH Campus Journal)
- [17 September](#) - AIRMAP Exhibit Featured at Dimond Library (the New Hampshire, UNH)
- [29 August](#) - Weather Stations, Donated by UNH, Keep Watch for Fire Danger (UNH News Bureau)
- [14 August](#) - Drought Continues to Plague New England, Says New Hampshire State Climatologist (UNH News Bureau)
- [12 August](#) - Air Monitoring Yields Surprises (Union Leader Sunday News)
- [9 August](#) - PSC to Get \$500K for Meteorology Program (Foster's Daily Democrat)
- [8 August](#) - Bad Air Days (The Christian Science Monitor)
- [1 August](#) - Scientists at Sea Studying Pollution's Airborne Path (Boston Globe)
- [30 July](#) - Tracking Air Pollution by Sea (Portsmouth Herald)
- [30 July](#) - Funding Measure Would Aid Studies of Air Pollution (Union Leader)
- [30 July](#) - New Hampshire Outlook Television special on the "New England Air Quality Experiment"
- [30 July](#) - More Funds Earmarked for N.H. Air Quality Studies (Foster's Daily Democrat)

- [29 July](#) - Keeping an Eye on the Ozone (Foster's Daily Democrat)
- [29 July](#) - In Brief: Air Pollution (Eagle Tribune)
- [29 July](#) - UNH Announces Additional Funding for Air Quality Research, The Result of \$12 Million in NOAA Funding Proposed by U.S. Senator Gregg (UNH News Bureau)
- [29 July](#) - Research Ship Ties up in Portsmouth (Foster's Daily Democrat)
- [28 July](#) - NOAA Research Vessel Docks in Portsmouth (Portsmouth Herald)
- [20 July](#) - Researchers Air Pollution Issues (Portsmouth Herald)
- [14 July](#) - Tracking America's Tailpipe (Foster's Daily Democrat)
- [11 July](#) - UNH, Government Studying Northeast Air Pollution (Foster's Daily Democrat)
- [11 July](#) - Research Ship to Help UNH Study Air Pollution (Union Leader)
- [9 July](#) - N. H. Air Pollution Monitors Picking up Strong Signals from Fires in Quebec (UNH News Bureau)
- [9 July](#) - UNH and NOAA Head Effort to Study N. E. Air Quality (UNH News Bureau)
- [23 June](#) - Keeping an Eye on the Air (Union Leader)
- [21 June](#) - Group Says NH Needs to Reduce Mercury (Union Leader)
- [21 June](#) - Business, Utility Leaders to Check UNH Air Monitors (Union Leader)
- [19 June](#) - UNH Business School Tour Will Focus on Economic Impact of Air Quality in New England (UNH News Bureau)
- [7 May](#) - An Attempt to Warn N.E. of Bad Air Days (Boston Globe)

2001

- [6 September](#) - Air Quality Initiative Begins (Granite State News)
- [1 September](#) - UNH Part of Air Quality Initiative (The New Hampshire, UNH)
- [30 August](#) - Gregg Visits Observatory (Carroll County Independent)
- [30 August](#) - Castle Part of Air Quality Network (Meredith News)
- [30 August](#) - Senator Judd Gregg Dedicates New Weather, Research Facility (Weirs News)
- [23 August](#) - Bad Air Days' Monitoring System in Moultonboro (Laconia Citizen)
- [23 August](#) - Towers to Keep Tabs on State's Air Quality (Concord Monitor)

- [23 August](#) - \$6M NH Air Quality Study Gets Under Way (Union Leader)
- [22 August](#) - Sen. Gregg and UNH Announce Largest-ever New England Air Quality Research Project (UNH News Bureau)
- [15 August](#) - Sen. Gregg, NOAA and UNH to Announce Largest-Ever New England Air Quality Research Initiative Aug. 22 (UNH News Bureau)
- [19 July](#) - Senator Gregg Secures \$88.06 Million for Air, Land, and Sea (Senator Judd Gregg News Releases)
- [11 May](#) - UNH Study: Asian Dust Storm Sending Industrial Pollution to Seacoast (Foster's Daily Democrat)
- [Winter](#) - Tomorrow's Forecast (University of New Hampshire Magazine)
- [30 March](#) - Global Warming—More Evidence,? (The Exchange, NH Public Radio)
- [15 March](#) - Senator Gregg Seeking \$1Million for Innovative Weather Forecast Project Through UNH and Plymouth State College (Office of Senator Judd Gregg)
- [30 January](#) - Southern Oscillation Faded; But Will Return (Portsmouth Herald)
- [30 January](#) - UNH Project Fights Pollution (Portsmouth Herald)
- [28 January](#) - Mt. Washington, A Classroom in Itself (Portsmouth Herald)
- [18 January](#) - Stormy Forecast is Tough to Call (Foster's Daily Democrat)
- [9 January](#) - PSC Dedicates New Weather Center (Union Leader)
- [8 January](#) - Senator Gregg Announces \$500,000 Federal Award During Dedication of Innovative Weather Center at Plymouth State College (Office of Senator Judd Gregg)

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- [5 October](#) - Forecasters: This Summer in New Hampshire Was Unusually Cool (Foster's Daily Democrat)
- [25 September](#) - Jet Stream to Blame for Region's Wet Weather All Summer (Foster's Daily Democrat)
- [23 August](#) - UNH Receives Funds to Study Air, Weather, Climate (Portsmouth Herald)
- [21 August](#) - Grant Will Assist Weather Experts (Concord Monitor)
- [15 August](#) - Senator Gregg and University of New Hampshire Announce \$5.3 Million Air Quality Program (Office of Senator Judd Gregg)

- [15 August](#) - UNH, NOAA Team up to Monitor Air Quality of New England (Foster's Daily Democrat)
- [17 June](#) - Unusually Cool Weather Keeping Summer at Bay (Foster's Daily Democrat)
- [8 May](#) - Durham Heat Tied 70-Year Old Record (Foster's Daily Democrat)
- [13 March](#) - State Climatologist Says Dryish Winter Not Unprecedented (Foster's Daily Democrat)
- [6 March](#) - No Water Shortage Anticipated, as Extra Rain Made Up for Lack of Snow (Foster's Daily Democrat)