

JONATHAN D. W. KAHL

Professor of Atmospheric Sciences
School of Freshwater Sciences
University of Wisconsin-Milwaukee

414-251-9215
kahl@uwm.edu
sites.uwm.edu/kahl



EDUCATION:

- Postdoctoral 1987-89 National Research Council Resident Research Associate: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory, Boulder, Colorado. Advisor: Russ Schnell.
- Ph.D., 1987 Atmospheric Science, University of Michigan. Advisor: Perry Samson.
Dissertation: Interpolation of synoptic-scale winds: Implications for boundary-layer trajectory model accuracy.
- M.S., 1983 Atmospheric Science, University of Michigan. Advisor: Perry Samson.
Thesis: Sensitivity of sulfate source-receptor relationships to meteorological variability.
- B.A., 1981 Psychology, University of Michigan

EMPLOYMENT HISTORY:

1/90 - present	Professor of Atmospheric Science, School of Freshwater Sciences, University of Wisconsin-Milwaukee (Full Professor 2000-present, Associate Professor 1994-2000, Assistant Professor 1990-94)
10/89 - 1/90, Summers, 90-92	Research Associate, Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder, Colorado.
10/87 - 10/89	National Research Council Research Associate, Geophysical Monitoring for Climatic Change Laboratory, National Oceanic and Atmospheric Administration, Boulder, Colorado.
4/87 - 9/87	Research Fellow, Space Physics Research Laboratory, Department of Atmospheric and Oceanic Science, University of Michigan, Ann Arbor, Michigan.
1/83 - 3/87	Research and Teaching Assistant, Department of Atmospheric and Oceanic Science, University of Michigan, Ann Arbor, Michigan.
9/85 - 8/86	Visiting Student, National Center for Atmospheric Research, Acid Deposition Modeling Project, Boulder, Colorado.

HONORS AND AWARDS:

- UW-Milwaukee International Advocate Award, 2023.
- UW-Milwaukee Distinguished Undergraduate Teaching Award, 2020.
- Teaching Excellence Award, given by the University of Wisconsin-Milwaukee Alumni Association, 2006.
- Fulbright Scholar Award, 2003.
- International courses taught: *Meteorological Aspects of Air Pollution*, 50-hr course taught at several universities in Mexico, 2006-present: University of Carmen, Ciudad del Carmen; University of Campeche; University of Nuevo León, Monterrey; University of Mexico (UNAM), Mexico City.
- International Keynote speaker:
 - Empowerment of Leaders in Sustainability and Climate Action, sponsored by the State of Nuevo Leon (Mexico), Secretary of Sustainable Development. Monterrey, Mexico, 2021
 - International Clean Air Day, webinar sponsored by the State of Nuevo Leon, Mexico, 2020.
 - Jornadas Ambientales 2020, webinar sponsored by the University of Veracruz-Orizaba. Atmospheric Sciences Panorama, Atmospheric Science Center, National Autonomous University of Mexico (UNAM), Mexico City, Mexico, 2018.
 - International Seminar on Health and Sustainability: Air pollution and sustainable mobility in urban areas, University of Nuevo León, Monterrey, Mexico, 2016
 - 1st International Conference on Chemical Engineering, University of Carmen, Ciudad del Carmen, Mexico, 2010
 - Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 2008
 - 8th Regional Conference of Biological and Pharmaceutical Chemistry, University of Nuevo León, Monterrey, Mexico, 2007.
 - 6th Regional Conference of Biological and Pharmaceutical Chemistry, University of Nuevo León, Monterrey, Mexico, 2004.
 - Chemical Engineering Conference, University of Nuevo León, Monterrey, 2003
- Editor, *International Journal of Environmental Research in Public Health*, 2019-2022
- Center Scholar, UW-Milwaukee Center for Instructional and Professional Development, 2005.
- Best Children's Book of the Year award for *Hazy Skies: Weather and the Environment*, Bank Street College of Education, 1999.
- Best Book for Children Award for *Hazy Skies: Weather and the Environment*, Science Books and Films (published by the American Association for the Advancement of Science), 1999.
- Quick Picks for Reluctant Readers Book Award for *The National Audubon Society First Field Guide to Weather*, American Library Association, 1999.
- Juvenile Non-fiction Book Award for *Hazy Skies: Weather and the Environment*, Council for Wisconsin Writers, 1998.
- Book Award for *Weather Watch: Forecasting the Weather*, Society of School Librarians International, 1997.

- Outstanding Science Trade Book for Children award for *Weather Watch: Forecasting the Weather*, National Science Teachers Association, 1997.

VISITING ACADEMIC APPOINTMENTS:

- Adjunct Professor, Department of Chemical Sciences, National Autonomous University of Nuevo Leon, Monterrey, Mexico, 2006-present.
- Visiting Teaching and Research Fellow, Corrosion Research Center, University of Campeche, Mexico, 2009
- Visiting Researcher, University of Mexico (UNAM), Mexico City, Mexico, 2003

RESEARCH AREAS:

- Air pollution meteorology
- Long-range atmospheric transport
- Air trajectory modeling
- Enhancing science education using technology
- Boundary-layer meteorology
- Polar meteorology
- Construction of historical Arctic upper-air meteorological data sets

PUBLICATIONS Scholar: 4281 citations; *h* index = 33; as of April 2024):

Books [23 total]:

Kahl, J.D.W., 2012: *Instructor's Resource Manual/Test Bank for Meteorology Today, 10th Edition*. Cengage Brooks/Cole Publishing Co., Davis, CA, 322 pp.

Kahl, J.D.W., 2011: *Instructor's Resource Manual/Test Bank for Essentials of Meteorology, 6th Edition*. Thomson Publishing Co., Davis, CA, 288 pp.

Kahl, J.D.W., 2010: *Instructor's Resource Manual/Test Bank for Extreme Weather*. Cengage Brooks/Cole Publishing Co., Davis, CA.

Kahl, J.D.W., 2008: *Instructor's Resource Manual/Test Bank for Meteorology Today, 9th Edition*. Cengage Brooks/Cole Publishing Co., Davis, CA, 441 pp.

Kahl, J.D.W., 2007: *Instructor's Resource Manual/Test Bank for Essentials of Meteorology, 5th Edition*. Thomson Publishing Co., Davis, CA, 356 pp.

Kahl, J.D.W., 2006: *Instructor's Resource Manual/Test Bank for Meteorology Today, 8th Edition*. Brooks/Cole Publishing Co., Davis, CA, 417 pp.

Kahl, J.D.W., 2004: *Instructor's Resource Manual for Ahrens' Essentials of Meteorology, An Invitation to the Atmosphere, 4th Edition*. Thomson Brooks/Cole Publishing Co., Belmont, CA, 303 pp.

Kahl, J.D.W., 2002: *Instructor's Resource Manual/Test Bank for Meteorology Today, 7th Edition*. Brooks/Cole Publishing Co., Davis, CA, 345 pp.

- Kahl, J.D.W.**, 2001: *Instructor's Manual with Test Item File to accompany Meteorology, Second Edition*. McGraw-Hill, Boston.
- Wiedner, C. and **J.D.W. Kahl**, 2000: *Instructor's Manual for Meteorology Today, 6th Edition*. Brooks/Cole Publishing Co., Davis, CA, 362 pp.
- Alden, P., B. Cassie, P. Friederici, **J.D.W. Kahl**, P. Leary, A. Leventer, and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Southwestern States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, **J.D.W. Kahl**, G. Nelson, E. Oches, H. Zirlin and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Southeastern States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, **J.D.W. Kahl**, E. Oches, H. Zirlin and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Mid-Atlantic States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, J. Grassy, **J.D.W. Kahl**, A. Leventer, D. Mathews and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Rocky Mountain States*. Alfred A. Knopf, New York, NY, 448 pp.
- Kahl, J.D.W.**, 1998: *National Audubon Society First Field Guide to Weather*. Scholastic, New York, NY, 160 pp.
- Kahl, J.D.W.**, 1998: *Balloons that rise, clouds that fall, and air that crushes: Forces in the atmosphere* (videorecording). Blue Sky Associates, Grafton, WI, 53 minutes.
- Kahl, J.D.**, 1998: *Instructor's Manual with Test Item File to accompany Meteorology, First Edition*. McGraw-Hill, Boston, 86 pp.
- Kahl, J.D.W.**, 1998: *Hazy Skies: Weather and the Environment*. Lerner, Minneapolis, MN, 64 pp.
- Kahl, J.D.W.**, 1996: *Weather Watch: Forecasting the Weather*. Lerner, Minneapolis, MN, 72 pp.
- Kahl, J.D.**, 1993: *Thunderbolt: Learning about Lightning*. Lerner, Minneapolis, MN, 56 pp.
- Kahl, J.D.**, 1993: *Storm Warning: Tornadoes and Hurricanes*. Lerner, Minneapolis, MN, 64 pp.
- Kahl, J.D.**, 1992: *Weatherwise: Learning about the Weather*. Lerner, Minneapolis, MN, 64 pp.
- Kahl, J.D.**, 1992: *Wet Weather: Rain Showers and Snowfall*. Lerner, Minneapolis, MN, 64 pp.

PUBLICATIONS, continued:**Book chapters [6 total]** (student mentees - graduate^M; undergraduate^m):

- Kahl, J.**, R. Soto Ayala, A. Herrera García, and F. Arroyo Valenquela, 2023: Meteorological Aspects and Atmospheric Thermodynamics. In *Thermodynamics for Earth Sciences: Fundamentals and Applications*. University of Mexico (in Spanish). <http://www.ptolomeo.unam.mx:8080/xmlui/handle/RepoFi/18540>
- Cerón, R. M., Cerón-Bretón, J. G., **J. Kahl**, Ramírez Lara, E., Córdova Quiroz, A. V., Espinosa Guzman, A. A., Muriel, M., Arenas Hernández, G. G., Canul, J., and Rodríguez-Guzmán, A., 2018: Atmospheric N and S Deposition Fluxes in the Metropolitan Area of Monterrey, Mexico and Its Relation with Criteria Air Pollutants and Meteorological Conditions. In *Air Pollution: monitoring, quantification and removal of gases and particles*, InTech Open, DOI: 10.5772/intechopen.79484
- Kahl, J.D.W.** and R. Olivas Saunders^M, 2012: Meteorological Analysis of Acid Deposition, in *Avances y Perspectivas de la Deposición Ácida en México (Advances and Perspectives in Acid Deposition in Mexico)*, Universidad Autónoma del Carmen, R. Cerón, J. Cerón, J. Guerra, eds., Ciudad del Carmen, Mexico. <https://bit.ly/2ZZJ1o6>.
- Kahl, J.D.W.**, 2012: Earth's Atmosphere. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 406-447
- Kahl, J.D.W.**, 2012: Weather. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 448-483
- Kahl, J.D.W.**, 2012: Climate. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 484-519

PUBLICATIONS, continued:**Refereed journal articles [101 total]** (student mentees - graduate^M; undergraduate^m):

- Kahl, J.D.W.**, 2023: Weathergami. *Bulletin of the American Meteorological Society*, 104 (10), <https://doi.org/10.1175/BAMS-D-23-0035.1>
- Martínez-Morales, S., Cerón-Bretón, J.G., Carbajal-Pérez, J.N., Cerón-Bretón, R.M., Lara-Severino, R.C., **Kahl, J.D.W.**, Carrillo-Ávila, J.R., Carranco-Lozada, S.E., Espinosa-Guzmán, A.A., Pech-Pech, I.E., García Martínez, R., Robles-Heredia, J.C., Hernández-López, G., Solís-Canul, J.A., and Uc-Chi, M.P., 2023: PM_{2.5}-bound trace metals in an urban area of Northern Mexico during the COVID-19 pandemic: characterization, sources, and health risk. *Air Quality, Atmosphere, & Health*, <https://doi.org/10.1007/s11869-023-01372-7>.

- Urbina Leonor, L.M., Sosa Echeverría, R., Perez Castellanos, N., Vega, E. , **Kahl, J.D.W.**, Solano Murillo, M., Soto Ayala, R., 2023: Importance of atmospheric sciences in stone heritage conservation study in Italy and Mexico. *Sustainability*, 15, 5321, <https://doi.org/10.3390/su15065321>.
- Fuentes García, G.; Echeverría, R.S.; Reynoso, A.G.; Baldasano Recio, J.M.; Rueda, V.M.; Hernández, A.R.; **Kahl, J.D.W.**, 2022. Sea Port SO₂ Atmospheric Emissions Influence on Air Quality and Exposure at Veracruz, Mexico. *Atmosphere*, 13, 1950. <https://doi.org/10.3390/atmos13121950>.
- Lara Carvajal, G.I., Sosa Echeverría, R., Magaña, V., Villagómez, G.F., **Kahl, J.D.W.**, 2022. Assessment of chemical risks associated with hydrometeorological phenomena in a Mexican port on the Gulf of Mexico. *Journal of Marine Science and Engineering*, <https://doi.org/10.3390/jmse10101518>.
- Lang^M, V.A., and **Kahl, J.D.W.**, 2022. Minimal PM_{2.5} Impact Observed in Communities Near Large, Recurring, Non-Independence Day Festivals with Fireworks Displays. *Air*, 1, 1–13. <https://doi.org/10.3390/air1010001>.
- Lang^M, V.A., T.J. Turner^M, B.R. Selbig^m, A.R. Harris^M, and **J.D.W. Kahl**, 2022: Predicting Peak Wind Gusts During Specific Weather Types with the Meteorologically Stratified Gust Factor Model. *Weather and Forecasting*, 37 (8), 1435-1446, <https://doi.org/10.1175/WAF-D-21-0201.1>.
- Fever^M, S.K., **Kahl, J.D.W.**, Kalkbrenner, A.E., Cerón Bretón, R.M., and Cerón Bretón, J.G., 2022. A New Combined Air Quality and Heat Index in Relation to Mortality in Monterrey, Mexico. *International Journal of Environmental Research and Public Health*, 19, 3299. <https://doi.org/10.3390/ijerph19063299>.
- Fuentes García, G., Sosa Echeverría, R., Baldasano Recio, J.M., **Kahl, J.D.W.**, Antonio Duran, R.E., 2022. Review of top-down method to determine atmospheric emissions in port. Case of study: Port of Veracruz, Mexico. *Journal of Marine Science and Engineering*, 10, 96. <https://doi.org/10.3390/jmse10010096>.
- Cerón Bretón, J.G., R. M. Cerón Bretón, **J.D.W. Kahl**, M.P. Uc Chi, R. Alomía, D.E. Heredia González, I. del C. Sánchez, Y.G. Pinzón, 2022. Seasonal and diurnal variations of BTEX in ambient air from a site impacted by the oil industry in southeast Mexico. *Bulletin of Environmental Contamination and Toxicology*, 108, 212–218. <https://doi.org/10.1007/s00128-021-03379-1>.
- Fuentes García G., Sosa Echeverría, R., Baldasano Recio, J. M., **Kahl, J. D. W.**, Granados Hernández, E., Alarcón Jiménez, A. L., Durán, R. A., 2021. Atmospheric emissions in ports due to maritime traffic in Mexico. *Journal of Marine Science and Engineering*, 9, 1186. <https://doi.org/10.3390/jmse9111186>.

- Cerón, R., Cerón, J.G., Espinosa, M., **Kahl, J.**, Espinosa, A., Garcia, R., Guarnaccia, C., Lara, R., Ramírez, E., and Francavilla, A., 2021. Short-term associations between morbidity and air pollution in metropolitan area of Monterrey, Mexico. *Atmosphere*, 21 (12), 1352. <https://doi.org/10.3390/atmos12101352>.
- Kahl, J. D. W.**, B. R. Selbig^m, A. R. Harris^M, 2021: Meteorologically stratified gust factors for forecasting peak wind gusts across the United States. *Bulletin of the American Meteorological Society*, 102 (9), doi.org/10.1175/BAMS-D-21-0013.1.
- Fuentes G., J. M. Baldasano Recio, R. Sosa E., E. Granados H., E. Z. Vargas, R. A. Duran, **J. D. W. Kahl**, 2021: Estimation of atmospheric emissions from maritime activity in the Veracruz port, Mexico. *Journal of the Air and Waste Management Association*, <https://doi.org/10.1080/10962247.2021.1902421>.
- Cerón Bretón, J. G., R. M. Cerón Bretón, **J. D. W. Kahl**, G. Sanchez-Rico, S.E. Carranco-Lozada, M. L. Espinosa Fuentes, M. P. Uc Chi, 2021: Concentrations, sources and health risk associated with exposure to BTEX at ten sites located in an urban-industrial area in the Bajío region, Mexico. *Air Quality, Atmosphere and Health*, **14**, 741–761. DOI: [10.1007/s11869-021-00976-1](https://doi.org/10.1007/s11869-021-00976-1).
- Cerón Bretón, R. M., J. G. Cerón Bretón, **J. D. W. Kahl**, M. de la L. Espinosa Fuentes, M. R. Marron, R. C. Lara Severino, E. Ramírez Lara, M. P. Uc Chi, 2020: Short-term effects of atmospheric pollution on daily mortality and their modification by increased temperatures associated with a climatic change scenario in Northern Mexico. *International Journal of Environmental Research in Public Health*, 17, DOI doi:10.3390/ijerph17249219.
- Kahl, J. D. W.**, 2020: Forecasting peak wind gusts using meteorologically-stratified gust factors and MOS guidance. *Weather and Forecasting*, 35(3), 1129-1143. DOI 10.1175/WAF-D-20-0045.1.
- Cerón Bretón, J. G., R. M. Cerón Bretón, S. Martínez Morales, **J. D.W. Kahl**, C. Guarnaccia, R. C. Lara Severino, M. R. Marron, A. A. Espinosa Guzman, M. Rangel Marrón, E. Ramírez Lara, M. de la L. Espinosa Fuentes, M. P. Uc Chi, G. Licona Sanchez, 2020: Health Risk Assessment of the Levels of BTEX in Ambient Air of One Urban Site Located in Leon, Guanajuato, Mexico During two Climatic Seasons. *Atmosphere*, 11, 165; doi:10.3390/atmos11020165.
- Cerón Bretón, J. G., R. M. Cerón Bretón, A. A. Espinosa Guzman, C. Guarnaccia, S. Martínez Morales, R. C. Lara Severino, M. Rangel Marrón, G. Hernández López, S. E. Carranco Lozada, **J. D.W. Kahl**, I. E. Pech Pech, E. Ramírez Lara, and M. de la L. Espinosa Fuentes, 2019: Trace Metals Content, Morphological Characterization and Risk Assessment of PM10 in Ambient Air in an Urban-Industrial Site in Leon, Guanajuato, Mexico during Three Climatic Seasons Of 2018. *Atmosphere*, 10(10), 573; <https://doi.org/10.3390/atmos10100573>.

- Cerón Bretón, R.M., **J. Kahl**, J.G. Cerón Bretón, and J.A. Solís Canul, 2019: The Influence of Meteorology and Atmospheric Transport Patterns on the Sulfate Levels in Rainwater in Orizaba Valley, Veracruz, Mexico. *Journal of Environmental Protection*, 10, 821-837. <https://doi.org/10.4236/jep.2019.106049>.
- Kahl, J.D.W.**, and H. L. Chapman^M, 2018: Atmospheric stability characterization using the Pasquill method: A critical evaluation. *Atmospheric Environment*, 187, 196-209. <https://doi.org/10.1016/j.atmosenv.2018.05.058>.
- Guerra-Santos, J.J. and **J.D.W. Kahl**, 2018: Redefining the Seasons in the Términos Lagoon Region of Southeastern México: May is a Transition Month, Not a Dry Month. *Journal of Coastal Research*, 34(1), 193-201.
- Cerón-Bretón, R.M., J. G. Cerón-Bretón, **J.D.W. Kahl**, R. C. Severino, M. Rangel Marrón, and E. Rustríán-Portilla, 2018: Potential influence of emissions and transport of N and S on Orizaba Valley, Veracruz, Mexico. *Agrociencia*, 52, 653-670.
- Cerón-Bretón, J.G., R. M. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, M. Espinosa Fuentes, R. C. Severino, M. Rangel Marrón, and M.P. Uc Chi, 2017: Atmospheric levels of benzene and C1-C2 carbonyls in San Nicolas De Los Garza, Nuevo Leon, Mexico: Source implications and health risk. *Atmosphere*, 8, 196; doi:10.3390/atmos8100196.
- Harris^M, A.R. and **J.D.W. Kahl**, 2017: Gust factors: Meteorologically-stratified climatology, data artifacts, and utility in forecasting peak gusts. *Journal of Applied Meteorology and Climate*, 56, 3151-3166. DOI: 10.1175/JAMC-D-17-0133.1
- Kahl, J.D.W.**, 2016: Automatic, Multiple Assessment Options in Undergraduate Meteorology Education. *Assessment and Evaluation in Higher Education*, 42:8, 1319-1325. <http://dx.doi.org/10.1080/02602938.2016.1249337>.
- Cerón-Bretón, J.G., R. M. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, C.A. Aguilar-Ucán, C. Montalvo-Romero, A. Mendoza-Dominguez, M. Muriel-García, J.A. Ortínez-Alvarez, 2016: Carbonyls in the urban atmosphere of Monterrey, Mexico: sources, exposure, and health risk. *Air Quality, Atmosphere and Health*. <http://dx.doi.org/10.1007/s11869-016-0408-1>.
- Ramirez-Lara, E., R. Cerón-Bretón, J.G. Cerón-Bretón, U. López-Chuken, **J.D.W. Kahl**, 2016: Study of Trace Ions in Wet Deposition of an Industrial Site in Monterrey's Metropolitan Area, Mexico. *Open Journal of Ecology*. DOI: 10.4236/oje.2016.61001. <http://dx.doi.org/10.4236/oje.2016.61001>.
- Cerón-Bretón, J.G., R. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, C. Guarnaccia, F. Anguebes-Franceschi, U. López-Chuken, 2014: Diurnal and seasonal variation of BTEX in the air of Monterrey, Mexico: preliminary study of sources and photochemical ozone pollution. *Air Quality, Atmosphere and Health*, DOI 10.1007/s11869-014-0296-1.

- Saunders^M, R.O., **Kahl, J.D.W.**, Ghorai, J.K, 2014: Improved estimation of PM_{2.5} using Lagrangian satellite-measured aerosol optical depth. *Atmospheric Environment*, 91, 146-153.
- Kahl, J.D.W.**, and J.G. Cerón, 2014: Faculty-Led Study Abroad in Atmospheric Science Education. *Bulletin of the American Meteorological Society*, 95(2), 283-292.
- Saunders^M, R.O., E. Scotty^m, **J.D.W. Kahl**, 2013: The sensitivity of single air parcel trajectory calculations to starting elevation. *Science of the Total Environment*, 229-236.
- González-Santiago, O., C. T. Badillo-Castañeda, E. Ramírez Lara, I. Balderas-Rentería, **J.D.W. Kahl**, 2011: Temporal analysis of PM₁₀ in Metropolitan Monterrey, México, *Journal of the Air and Waste Management Association*, 61, 573-579.
- Ramírez Lara E., Miranda Guardiola R., Gracia Vásquez Y., Balderas Rentería I., Bravo Álvarez H., Sosa Echeverría R., Sánchez Álvarez P., Alarcón Jiménez A., Torres M.C., **Kahl J.D.W.**, 2010: Chemical composition of rainwater in northeastern México. *Atmosfera*, 23(3), 213-224.
- Thishan Dharshana^M, K. G., S. Kravtsov, and **J. D. W. Kahl**, 2010: Relationship between synoptic weather disturbances and particulate matter air pollution over the United States, *JGR-Atmospheres*, 115, D24219, doi:10.1029/2010JD014852.
- Kahl, J.D.W.**, 2008: Reflections on a large-lecture, introductory meteorology course: Goals, assessment and opportunities for improvement. *Bulletin of the American Meteorological Society*, 89(7), 1029-1034.
- McConnell, J.R., P. Ross-Edwards, G.L. Kok, M.G. Flanner, C.S. Zender, E.S. Saltzman, J.R.Banta, D.R. Pasteris, M.M. Carter^M and **J.D.W. Kahl**, 2007: 20th century industrial black carbon emissions altered Arctic climate forcing. *Science*, 317, 1381-1384.
- Sosa-Echeverría, R., Bravo-Alvarez, H., Sánchez-Alvarez, P., Soto-Ayala, R., Alarcón-Jiménez, A. and Kahl, **J.D.W.**, 2007: Determinación de partículas suspendidas totales durante cinco cruceros de investigación en la plataforma continental del Golfo de Mexico. [Determination of total suspended particulates during five research cruises in the continental shelf of the Gulf of Mexico]. *Ingeniería Investigación y Tecnología* [Engineering Research and Technology], 8(2), 71-83.
- Anrubio Vega, E.J., Bravo Alvarez, H., Brezonik, P.L., Chan, R.M., Fitz, D., Grosjean, D., Hernández Téllez, **J.**, **Kahl, J.**, Keener, T.C., López Portillo, M., Lu, M., Paredes Maury, S., Nakamura, S., Ortega Morales, B.O., Pescador, L., Reyes Trujeque, J., Sánchez Alvarez, P., Scheff, P., Sosa Echeverria, R., Soto Ayala, R., and Vazquez Botello, A.: A Summary of the International Workshop on the Influences of Air Quality on the Mayan Heritage Sites in Mesoamerica. *Environmental Management*, February, pp 24-30, 2007.
- Kahl, J.D.W.**, H. Bravo A., R. Soto A., R. Sosa E., P. Sánchez A., Ana Luisa Alarcón J., 2007: Characterization of atmospheric transport to the El Tajín Archaeological Zone in Veracruz, Mexico. *Atmosfera*, 20(4), 359-371.

- Kahl, J.D.W.** and C. A. Berg, 2006: Acid Thunder: Acid rain and ancient Mesoamerica. *The Social Studies*, **97**, 134-136.
- Bravo, H., Soto, R., Sosa, R., Sanchez, P., Alarcon, J., **Kahl, J.** and Ruiz, B., 2006: Effects of acid rain on building material of the El Tajin archaeological zone. *Environmental Pollution*, **144**(2), 655-660.
- Kahl, J.D.W.**, C. Berg, M. Gruhl and T. Tennessen, 2005: Acid thunder and world wide weather. *The Earth Scientist*, **21**, 4-9.
- Kahl, J.D.W.**, K.A. Horwitz^m, Craig A. Berg and Mary C. Gruhl, 2004: The quest for the perfect weather forecaster. *Science Scope*, **27**, 24-27.
- Kahl, J.D.W.** and K.A. Horwitz^m, 2003: Reply to "Not High on the Low". *Bulletin of the American Meteorological Society*, **84**, 1330.
- Kahl, J.D.W.** and K. A. Horwitz^m, 2003: Daily low or overnight low? Confusion in icon-based forecasts. *Bulletin of the American Meteorological Society*, **84**, 155-156.
- Daoud, W.Z., **J.D.W. Kahl** and J.K. Ghorai, 2003: On the synoptic-scale Lagrangian autocorrelation function. *Journal of Applied Meteorology*, **42**, 318-324.
- Kahl, J.D.W.**, 2002: Weather forecasting and the Internet. *International School Services NewsLinks*, 18, no. 2, p. 25.
- Kahl, J.D.W.**, 2002: Weather forecasting using the Internet. *MSTA Journal*, 47, p. 57-60.
- Kahl, J.D.W.**, 2002: Weather resources on the Internet. *Crucible*, 33, p. 13.
- Miller^M, J.E., **J.D.W. Kahl**, F. Heller and J.M. Harris, 2002: A three-dimensional residence time analysis of potential summertime atmospheric transport to Summit, Greenland. *Annals of Glaciology*, **35**, 403-408.
- Nagurnyi, A.P., N.A. Zaitseva, G.V. Alekseev, E. Yu. Medvedchenko, A. Shumbera, **J.D.W. Kahl** and R. Schnell, 2001: Archive of radiosonde data obtained at the ice drifting stations North Pole. *Meteorology and Hydrology*, no. 6, 55-61.
- Kahl, J.D.W.**, 2001: Meteorology online: Weather forecasting using the Internet. *The Science Teacher*, **68**, 22-25.
- Kahl, J.D.W.**, M. Jansen^m and M.A. Pulrang^m, 2001: Fifty year-record of North Polar temperatures shows warming. *EOS Transactions, American Geophysical Union*, **82**, 1.
- Slater, J.F., J.E. Dibb, B.D. Keim and **J.D.W. Kahl**, 2001: Relationships between synoptic-scale transport and interannual variability of inorganic cations in surface snow at Summit, Greenland: 1992-96. *Journal of Geophysical Research*, 106, D18, 20,897-20,912.

- Harris, J.M., E.J. Dlugokencky, S.J. Oltmans, P.P. Tans, T.J. Conway, P.C. Novelli, K.W. Thoning and **J.D.W. Kahl**, 2000: An interpretation of trace gas correlations during Barrow, Alaska, winter dark periods, 1986-1997. *Journal of Geophysical Research*, **105**, 17,267-17,278.
- Kahl, J.D.W.**, N.A. Zaitseva, V. Khatatov, R.C. Schnell, D.M. Bacon, J. Bacon, V. Radionov and M.C. Serreze, 1999: Radiosonde observations from the former-Soviet "North Pole" series of drifting ice stations. *Bulletin of the American Meteorological Society*, **80**, 2019-2026 [cover article].
- Kahl, J.D.W.**, J.A. Galbraith^M and D.A. Martinez^m, 1999: Decadal-scale variability in long-range atmospheric transport to the Summit of the Greenland Ice Sheet. *Geophysical Research Letters*, **26**, 481-484.
- Subhash, S., R.E. Honrath and **J.D.W. Kahl**, 1999: Back-trajectory analysis of atmospheric PCB concentrations over Lake Superior. *Environmental Science and Technology*, **33**, 1509-1515.
- Jaffrezo, J.-L., C.I. Davidson, H.D. Kuhns, M.H. Bergin, R. Hillamo, W. Maenhaut, **J.D.W. Kahl** and J.M. Harris, 1998: Biomass burning signatures in the atmosphere of central Greenland. *Journal of Geophysical Research*, **103**, 31,067-31,079.
- Kahl, J.D.W.**, D. Liu^M, W.H. White, E.S. Macias and L. Vasconcelos, 1997: The relationship between atmospheric transport and the particle scattering coefficient at the Grand Canyon. *Journal of the Air and Waste Management Association*, **47**, 301-307.
- Kahl, J.D.W.**, D.A. Martinez^m, H. Kuhns, C. Davidson, J.-L. Jaffrezo and J.M. Harris, 1997: Air mass trajectories to Summit, Greenland: A 44-year climatology and some episodic events. *Journal of Geophysical Research*, **102**, 26,861-26,875.
- Kahl, J.D.W.**, 1996: On the prediction of trajectory model error. *Atmospheric Environment*, **30**, 2945-2957.
- Kahl, J.D.W.**, D.A. Martinez^m and N.A. Zaitseva, 1996: Long-term variability in the low-level inversion layer over the Arctic Ocean. *International Journal of Climatology*, **16**, 1297-1313.
- Zaitseva, N.A., Skony^M, S.M. and **J.D. Kahl**, 1996: Temperature inversions in the Western Arctic from radiosonde data. *Meteorology and Hydrology*, no. 6, 11-24.
- Vasconcelos, L. A. de P., **J.D.W. Kahl**, D. Liu^M, E.S. Macias and W.H. White, 1996: Patterns of dust transport to the Grand Canyon. *Geophysical Research Letters*, **23**, 3187-3190.
- Vasconcelos, L. A. de P., **J.D.W. Kahl**, D. Liu^M, E.S. Macias and W.H. White, 1996: A tracer calibration of back trajectory analysis at the Grand Canyon. *Journal of Geophysical Research*, **101**, 19,329-19,335.

- Vasconcelos, L. A. de P., **J.D.W. Kahl**, D. Liu^M, E.S. Macias and W.H. White, 1996: Spatial resolution of a transport inversion technique. *Journal of Geophysical Research*, **101**, 19,337-19,342.
- Kahl, J.D.W.**, 1995: Review of *Antarctic Meteorology and Climatology: Studies Based on Automatic Weather Stations* by D. Bromwich and C. Stearns. *Bulletin of the American Meteorological Society*, **76**, 58-60.
- Bales, R.C., J. McConnell, Mark Losleben, M. Conklin, K. Fuhrer, A. Neftel, J. Dibb, **J. Kahl** and C. Stearns, 1995: The Diel variations of H₂O₂ in Greenland: A discussion of the Cause and Effect Relationship. *Journal of Geophysical Research*, **100**, 18661-18668.
- Dibb, J., V. Hart, M. Pender, C. Davidson, M. Bergin, H. Kuhns, R. Bales, J. McConnell, M. Losleben, J. Winterle, W. Munger, D. Jacob, R. Mendelson, S-M Fan, A. Colman, M. Albert, E. Arons, C. Stearns and **J. Kahl**, 1995: Atmosphere-snow exchange at Summit, Greenland. *Arctic Res. of the U.S.*, **9**, 48-52.
- Serreze, M.C., M.C. Rehder, R.G. Barry, **J.D. Kahl** and N.A. Zaitseva, 1995: The distribution and transport of atmospheric water vapor over the Arctic Basin. *International Journal of Climatology*, **15**, 709-727.
- Serreze, M.C., M.C. Rehder, R.G. Barry and **J.D. Kahl**, 1994: A climatological data base of Arctic water vapor characteristics. *Polar Geography and Geology*, **18**, 63-75.
- Harris, J.M. and **J.D.W. Kahl**, 1994: An analysis of 10-day isentropic flow patterns for Barrow, Alaska: 1985-1992. *Journal of Geophysical Research*, **99**, 25,845-25,955.
- Elliott, W.P., D.J. Gaffen, **J.D.W. Kahl** and J.K. Angell, 1994: The effect of moisture on layer thicknesses used to monitor global temperatures. *Journal of Climate*, **7**, 304-308.
- White, W.W., E.S. Macias, **J.D. Kahl**, P.J. Samson, J.V. Molenaar and W.C. Malm, 1994: On the potential of regional-scale emissions zoning as an air quality management tool for the Grand Canyon. *Atmospheric Environment*, **28A**, 1035-1045.
- Skony^M, S.M., **J.D. Kahl** and N.A. Zaitseva, 1994: Differences between radiosonde and dropsonde temperature profiles over the Arctic Ocean. *Journal of Atmospheric and Oceanic Technology*, **11**, 1400-1408.
- Kahl, J.D.**, 1993: A cautionary note on the use of air trajectories in interpreting atmospheric chemistry measurements. *Atmospheric Environment*, **27A**, 3037-3038.
- Kahl, J.D.**, D.J. Charlevoix^m, N.A. Zaitseva, R.C. Schnell and M.C. Serreze, 1993: Absence of evidence for greenhouse warming over the Arctic Ocean in the past 40 years. *Nature*, **361**, 335-337.
- Kahl, J.D.**, M.C. Serreze, R.S. Stone, S. Shiotani, M. Kisley and R.C. Schnell, 1993: Tropospheric temperature trends in the Arctic: 1958-1986. *Journal of Geophysical Research*, **98**, 12825-12838.

- Sheridan, P.J., R.C. Schnell, **J.D. Kahl**, J.F. Boatman and D.M. Garvey, 1993: Microanalysis of the aerosol collected over south-central New Mexico during the ALIVE field experiment, May-December, 1989. *Atmospheric Environment*, **27A**, 1169-1183.
- Kahl, J.D.**, M.C. Serreze and R.C. Schnell, 1992: Low-level tropospheric temperature inversions in the Canadian Arctic. *Atmosphere-Ocean*, **30**, 511-529.
- Kahl, J.D.**, M.C. Serreze, S. Shiotani, S.M. Skony^M and R.C. Schnell, 1992: In-situ meteorological sounding archives for Arctic studies. *Bulletin of the American Meteorological Society*, **73**, 1824-1830.
- Serreze, M.C., **J.D. Kahl** and R.C. Schnell, 1992: Low-level temperature inversions of the Eurasian Arctic and comparisons with Soviet drifting station data. *Journal of Climate*, **5**, 615-630.
- Serreze, M.C., J.A. Maslanik, M.C. Rehder, R.C. Schnell, **J.D. Kahl** and E.L. Andreas, 1992: Theoretical heights of buoyant convection above open leads in the winter Arctic pack ice cover. *Journal of Geophysical Research*, **97(C6)**, 9411-9422.
- Kahl, J.D.**, R.C. Schnell, P.J. Sheridan, B.D. Zak, H.W. Church, A.S. Mason, J.L. Heffter and J.M. Harris, 1991: Predicting atmospheric debris transport in real-time using a trajectory forecast model. *Atmospheric Environment*, **25A**, 1705-1713.
- Stone, R.S. and **J.D. Kahl**, 1991: Variations in boundary-layer properties associated with clouds and transient weather disturbances at the South Pole during winter. *Journal of Geophysical Research*, **96**, 5137-5144.
- Jaffe, D.A., R.E. Honrath, J.A. Herring, S.-M. Li and **J.D. Kahl**, 1991: Measurements of nitrogen oxides at Barrow, Alaska during spring: Evidence for regional and northern hemispheric sources of pollution. *Journal of Geophysical Research*, **96**, 7395-7405.
- Kahl, J.D.**, 1990: Characteristics of the low-level temperature inversion along the Alaskan Arctic coast. *International Journal of Climatology*, **10**, 537-548.
- Kahl, J.D.**, 1990: Comments on "Characteristics of plume releases as depicted by balloon launchings and model simulations". *Journal of Applied Meteorology*, **29**, 1080-1081.
- Li, S.-M., J.W. Winchester, **J.D. Kahl**, S.J. Oltmans, R.C. Schnell and P.J. Sheridan, 1990: Arctic boundary layer ozone variations associated with nitrate, bromine, and meteorology: A case study. *Journal of Geophysical Research*, **95**, 22433-22440.
- Shi, B., **J.D. Kahl**, Z. Christidis and P.J. Samson, 1990: Simulation of the three-dimensional distribution of tracer during the Cross-Appalachian Tracer Experiment. *Journal of Geophysical Research*, **95**, 3693-3703.
- Harris, J.M. and **J.D. Kahl**, 1990: A descriptive atmospheric transport climatology for the Mauna Loa Observatory using clustered trajectories. *Journal of Geophysical Research*, **95**, 13651-13667.

- Kahl, J.D.** and A.D.A. Hansen, 1989: Determination of regional sources of aerosol black carbon in the Arctic. *Geophysical Research Letters*, **16**, 327-330 [cover article].
- Kahl, J.D.**, J.M. Harris, G.A. Herbert and M.P. Olson, 1989: Intercomparison of three long-range trajectory models applied to Arctic haze. *Tellus*, **41B**, 524-536.
- Bridgman, H., R.C. Schnell, **J.D. Kahl**, G.A. Herbert and E. Joranger, 1989: A major haze event near Point Barrow, Alaska: Analysis of probable source regions and transport pathways. *Atmospheric Environment*, **23**, 2537-2549.
- Oltmans, S.J., R.C. Schnell, P.J. Sheridan, R.E. Peterson, S.M. Li, J.W. Winchester, P.P. Tans, W.T. Sturges, **J.D. Kahl** and L.A. Barrie, 1989: Seasonal surface ozone and filterable bromine relationship in the high Arctic. *Atmospheric Environment*, **23**, 2431-2441.
- Kahl, J.D.** and P.J. Samson, 1988: Uncertainty in estimating boundary-layer transport during highly convective conditions. *Journal of Applied Meteorology*, **27**, 1024-1035.
- Kahl, J.D.** and P.J. Samson, 1988: Shear effects on wind interpolation accuracy. *Journal of Applied Meteorology*, **27**, 1299-1301.
- Kahl, J.D.** and P.J. Samson, 1988: Trajectory sensitivity to rawinsonde data resolution. *Atmospheric Environment*, **22**, 1291-1299.
- Kahl, J.D.** and P.J. Samson, 1986: Uncertainty in trajectory calculations due to low resolution meteorological data *Journal of Climate and Applied Meteorology*. **25**, 1816-1831.

PUBLICATIONS, continued:

Conference proceedings [75 total] (student mentees - graduate^M; undergraduate^m):

- Lang^M, V.A., T.J. Turner^M, B.R. Selbig^m, A.R. Harris^M, and **J.D.W. Kahl**, 2022: Predicting peak wind gusts during specific weather types with the meteorologically stratified gust factor model. Presented (virtual) at the American Meteorological Society 31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP).
- Kahl, J.D.W.**, and R. Olivas Saunders^M, 2012: Meteorological Analysis of Acid Deposition. Presented at the First Workshop on Advances and Perspectives in Acid Deposition in Mexico. Ciudad del Carmen, Mexico, 7-8 August 2012.
- Ramirez-Lara, E., D. Facundo-Torres, R. Miranda-Guardiola, Y. Gracia-Vásquez, U. López-Chuken, **J. Kahl**, 2011: Study of wet deposition and its use as an indicator of the air quality in Monterrey's metropolitan area. Proceedings, 104th Air and Waste Management Association Annual Conference and Exhibition, Orlando, Florida, 21-24 June 2011.

- McConnell, J.R., M. Flanner, D. Fritzsche, **J. Kahl**, K. Kreutz, J.-F. Lamarque, L. Layman, P. Neff, M. Nolan, D. Pasteris, J.P. Steffensen, K. Steffen, E. Steig, P. Vallelonga, 2011: A history of industrial heavy metal pollution in the Arctic since 1750 from a developing array of ice cores. Arctic Monitoring and Assessment Programme "The Arctic as a Messenger for Global Processes - Climate Change and Pollution", 4-6 May 2011, Copenhagen, Denmark.
- McConnell, J.R., **Kahl, J.**, Pasternis, D., Flanner, M. and Nolan, M., 2010: A history of aerosols in the Western Arctic during recent centuries. Presented at the State of the Arctic 2010 conference, 16-19 March 2010, Miami, Florida.
- Kahl, J.D.W.**, 2008: Reflections on a large-lecture, introductory meteorology course: Goals, assessment and opportunities for improvement. Presented at the American Meteorological Society 17th Symposium on Education, 20-24 January, New Orleans, Louisiana.
- Kahl, J.D.W.**, 2008: Climate changes around the world. Presented at the Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 21-25 September 2008.
- Kahl, J.D.W.**, 2008: Atmospheric Transport to the El Tajín Archaeological Zone in Veracruz, Mexico. Presented at the Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 21-25 September 2008.
- McConnell, J.R., P. Ross-Edwards, G.L. Kok, M.G. Flanner, C.S. Zender, E.S. Saltzman, J.R. Banta, D.R. Pasteris, M.M. Carter^M and **J.D.W. Kahl**, 2007: 20th century industrial black carbon emissions altered Arctic climate forcing. Presented at the 2007 Fall Meeting, 10-14 December, San Francisco, California.
- Bravo Álvarez H., **Kahl J.**, Miranda Guardiola R., Ramírez Lara E., Alarcón A., Sosa Echeverría R., Sánchez Álvarez, P.: Preliminary Study of the Chemical Composition of Rainwater in Northeastern México. Presented at the 100th Annual Meeting of the Air and Waste Management Association, Pittsburgh, Pennsylvania, June 26–29, 2007.
- Bravo A., Humberto, Rodolfo Sosa E., **Jonathan Kahl, J.**, Rogelio Soto A., Pablo Sánchez A. Ana Luisa Alarcón: Acid Deposition Events during the Autumn of 2003 in a cruise over the Gulf of Mexico. Presented at the 99th Annual Meeting of the Air and Waste Management Association, New Orleans, Louisiana, 20-23 June 2006.
- Kahl, J.D.W.**, 2005: Student-friendly tools for visualizing Arctic climate change. Presented at the 15th Annual Wisconsin Space Conference, Madison, Wisconsin, August 2005.
- Kahl, J.D.W.**, 2005: Using Back Trajectories to Investigate the Sources of Acid Precipitation at El Tajín. Presented at the 98th Annual Meeting of the Air and Waste Management Association, Minneapolis, Minnesota, June 2005.

- McConnell, J.R., P.R. Edwards, **J.D.W. Kahl**, J.F. Burkhart and R.C. Bales, 2004: Ultra-trace surface snow chemistry at Summit Greenland: July 2003 to August 2004. Presented at the Fall Meeting of the American Geophysical Union, San Francisco, California, December 2004.
- Bravo, H., R. Soto, R. Sosa, P. Sanchez , A. Alarcon , **J. Kahl** , J. Ruiz 2004: Acid deposition effects on archaeological monuments in Mexico. Presented at the 13th World Clean Air and Environmental Protection Congress and Exhibition, London, UK, August 22 - 27, 2004.
- Bravo, H., R. Sosa, P. Sanchez , A. Alarcon , J. Ruiz, **J. Kahl**, R. Soto, 2004: Particulate air quality over the Gulf of Mexico. Paper 04-411-AWMA Presented at the 97th Annual Meeting of the Air and Waste Management Association, Indianapolis, Indiana, 22-25 June 2004.
- Kahl, J.D.W.**, 2003: The Internet Weather Forecasting Activity. Presented at the Sixth International Conference on School and Popular Meteorological and Oceanographic Education, Madrid, Spain, July 2003.
- Kahl, J.D.W.** and K.A. Horwitz^m, 2003: Weather WebQuests: Internet-based activities for learning mathematical concepts by comparing weather forecasts. Presented at the Sixth International Conference on School and Popular Meteorological and Oceanographic Education, Madrid, Spain, July 2003.
- Miller^M, J.E., **J.D.W. Kahl**, F. Heller and J.M. Harris., 2001: A three-dimensional residence time analysis of summertime atmospheric transport to Summit, Greenland. Presented at the International Glaciological Society's International Symposium on Ice Cores and Climate, Kangerlussuaq, Greenland, August 2001.
- Kahl, J.D.W.**, 2001: Atmospheric transport to Summit, Greenland: Changes during the past four decades. Presented at the International Glaciological Society's International Symposium on Ice Cores and Climate, Kangerlussuaq, Greenland, August 2001.
- Kahl, J.D.W.**, 2000: Weather Forecasting Using the Internet. Proceedings, National Science Teachers Association Midwest Regional Meeting, Milwaukee, WI, October 2000.
- O'Malley, R. J. and **J.D.W. Kahl**, 2000: Critical Thinking Using Chaos and Fractals. Proceedings, National Science Teachers Association Midwest Regional Meeting, Milwaukee, WI, October 2000.
- Daoud, W.Z. and **J.D.W. Kahl**, 2000: On the Lagrangian autocorrelation function to hemispheric scales. Proceedings, International Association for Mathematics and Computers in Simulation's International Conference on Scientific Computing and Mathematical Modeling, Milwaukee, WI, May 2000.

- Pulrang^m, M.A. and **J.D.W. Kahl**, 2000: A standard atmosphere for the Arctic. Proceedings, International Association for Mathematics and Computers in Simulation's International Conference on Scientific Computing and Mathematical Modeling, Milwaukee, WI, May 2000.
- Kahl, J.D.W.**, 2000: Online weather forecasting exercises in an introductory meteorology class. Presented at the American Meteorological Society's 9th Symposium on Education, Long Beach, CA, January 2000.
- Kahl, J.D.W.**, 1999: "How's the Weather?" - Resources for Elementary and Middle-School Meteorology Curricula. Presented at the American Meteorological Society's 8th Symposium on Education, Dallas, TX, January 1999.
- Kahl, J.D.W.**, 1999: The "Term Page": Student-Created Web Sites in a Freshman Meteorology Course. Presented at the American Meteorological Society's 8th Symposium on Education, Dallas, TX, January 1999.
- Kahl, J.D.W.**, 1999: University-High School Collaboration in Meteorological Education using Videoconferencing. Presented at the American Meteorological Society's 8th Symposium on Education, Dallas, TX, January 1999.
- Kahl, J.D.W.**, 1999: Decadal-scale Variability in Long-Range Atmospheric Transport to the Greenland Ice Sheet. Presented at the American Meteorological Society's 5th Conference on Polar Meteorology and Oceanography, Dallas, TX, January 1999.
- Kahl, J.D.W.**, 1998: Videoconferencing for High School and University Collaboration within a Meteorology Curriculum. Center for Learning Technologies in Urban Schools, Northwestern University, 27-31 July 1998, Evanston, IL.
- Kahl, J.D.W.**, 1998: The CoVis Project: Expanding Educational Horizons through New Communications. Wisconsin Society of Science Teachers Convention '98, Appleton, WI, 24 April 1998.
- Kahl, J.D.W.**, 1998: The 'Term Page': Experiences with Student-Created Web Sites. Sixth Annual Conference on Issues in Undergraduate Education, University of Wisconsin-Milwaukee, 9 April 1998.
- Kahl, J.D.W.**, 1997: Trends in temperatures and boundary layer structure as revealed by historical atmospheric sounding data. Proceedings, American Meteorological Society Workshop on Polar Processes in Global Climate, Cancún, Mexico, 13-15 November 1996, pp. 49-51.
- Kahl, J.D.W.**, 1996: Electronic methods in an introductory science course: A Chalkless introduction to weather. Presented at the conference on "Building an Educational Experience Through Applications of Computer-Based Technologies", St. Paul, MN, 21-22 November 1996.

- Kahl, J.D.W.**, D.A. Martinez, H. Kuhns, C. Davidson, J.-L. Jaffrezo and J.M. Harris, 1996: Seasonal variability in present-day atmospheric transport to Summit, Greenland. Presented at the American Association for Aerosol Research 15th Annual Conference, Orlando, Florida, 14-18 October 1996.
- Kuhns, H.D., C.I. Davidson, J.-L. Jaffrezo, **J.D.W. Kahl** and J.M. Harris, 1996: Relationship between summertime aerosol composition and three dimensional back trajectory calculations at Summit, Greenland. Presented at the American Association for Aerosol Research 15th Annual Conference, Orlando, Florida, 14-18 October 1996.
- Jaffrezo, J.-L., C.I. Davidson, H.D. Kuhns, M.H. Bergin, R. Hillamo and **J.D.W. Kahl**, 1996: A biomass burning plume over central Greenland: Sources and characteristics of the aerosol and transfer to a fog. Presented at the American Association for Aerosol Research 15th Annual Conference, Orlando, Florida, 14-18 October 1996.
- Davidson, C.I., H.D. Kuhns, M.H. Bergin, J.-L. Jaffrezo and **J. Kahl**, 1996: Atmospheric transport and deposition of chemical species onto polar ice sheets. Presented at the Sixth International Conference on Preservation of Our World in the Wake of Change, Jerusalem, Israel, 30 June - 4 July 1996.
- Kahl, J.D.W.**, D.A. Martinez^m and N.A. Zaitseva, 1995: Changes in the low-level temperature inversion over the Arctic Ocean, 1950-1990. Presented at the Fourth Conference on Polar Meteorology and Oceanography, American Meteorological Society, Dallas, TX, January 1995.
- Kahl, J.D.W.**, 1995: Textbooks for teaching meteorology at elementary and middle school levels. Presented at the Fourth Symposium on Education, American Meteorological Society, Dallas, TX, January 1995.
- Kahl, J.D.** and D. Liu^M, 1994: The relationship between atmospheric transport and the particle scattering coefficient at the Grand Canyon. Proceedings, International Specialty Conference on Aerosols and Atmospheric Optics: Radiative Balance and Visual Air Quality, Air and Waste Management Association, Snowbird, Utah, 26-30 September 1994, pp. 652-662.
- Serreze, M.C., M.C. Rehder, R.G. Barry, J.E. Walsh, **J.D. Kahl** and N. Zaitseva, 1994: Characteristics of atmospheric water vapor and its transports over the Arctic Basin. 24th Arctic Workshop, INSTAAR, University of Colorado, 17-19 March 1994.
- Schnell, R.C., P.J. Sheridan, B.A. Bodhaine, E.G. Dutton and **J.D. Kahl**, 1993: Arctic gas and aerosol data sets from AGASP and the Barrow baseline station. International Symposium on the Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, 4-8 October 1993.
- Elliott, W.P., D.J. Gaffen, **J. Kahl** and J.K. Angell, 1993: Effects of moisture changes on calculations of mean layer virtual temperature trends. To be presented at the Eighth Symposium on Meteorological Observations and Instrumentation, American Meteorological Society, Anaheim, CA, 17-22 January 1993.

- Kahl, J.D.**, D. Charlevoix^m, N. Zaitseva, R. Schnell, 1992: Lower tropospheric temperature trends over the central Arctic Ocean: 1950-1990. Proceedings, Third Conference on Polar Meteorology and Oceanography, American Meteorological Society, 29 September - 2 October 1992.
- Stone, R.S., **J.D. Kahl**, M.C. Serreze and R.C. Schnell, 1992: Trend analyses of tropospheric temperatures in the Arctic - Is there evidence of greenhouse warming? Proceedings, Third Conference on Polar Meteorology and Oceanography, American Meteorological Society, 29 September - 2 October 1992.
- Serreze, M.C., J.A. Maslanik, R.S. Stone, R.C. Schnell, **J.D. Kahl** and E.L. Andreas, 1992: Predicted heights of buoyant convection above open leads in the winter Arctic pack ice cover. Proceedings, Third Conference on Polar Meteorology and Oceanography, American Meteorological Society, 29 September - 2 October 1992.
- Serreze, M.C., R.S. Stone and **J.D. Kahl**, 1992: Trends in Arctic tropospheric temperatures. Abstracts volume, Association of American Geographers, 88th Annual Meeting, San Diego, California, 18-22 April 1992.
- Jadin, E.A., **J.D. Kahl** and J.M. Harris, 1992: Ozone variations and transport processes in the Antarctic during August-September 1987 and in the Arctic during January-February 1989. Proceedings, International Symposium on Middle Atmospheric Science, 23-27 March, 1992, Kyoto, Japan, p. 132.
- Kahl, J.D.**, R.C. Schnell and P.J. Sheridan, 1992: Real-time forecasting of atmospheric transport. In H. van Dop, ed., *Air Pollution Modeling and Its Application IX*, Plenum Press, New York, pp. 351-355.
- Khalsa, S.J.S., J.R. Key, **J.D. Kahl**, M.C. Serreze, R.C. Schnell and J.J. Bates, 1991: A TOVS temperature sounding record for the Arctic. Extended Abstracts Volume, Fifth Climate Variations Conference, Denver, Colorado, 14-18 October 1991, American Meteorological Society.
- Stone, R.S. and **J.D. Kahl**, 1991: Inter-relationships between cloud radiative effects, transport processes, and boundary-layer structure at the South Pole during winter. Presented at the Symposium on the Tropospheric Chemistry of the Antarctic Region, Boulder, Colorado, June 1991.
- Harris, J.M. and **J.D. Kahl**, 1991: A descriptive atmospheric transport climatology for the Mauna Loa Observatory, using clustered trajectories. Extended Abstracts Volume, Seventh Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.
- Kahl, J.D.**, S.M. Skony^M, P.J. Sheridan, R.C. Schnell and M.C. Serreze, 1991: A comprehensive collection of Arctic meteorological soundings for use in climate studies. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.

- Stone, R.S. and **J.D. Kahl**, 1991: Cloud radiative effects and associated changes in tropospheric temperatures and winds at the south pole during the Austral winter. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Hansen, A.D.A., R.C. Schnell, **J.D. Kahl**, B.A. Bodhaine and V.N. Kapustin, 1991: Comparison of measurements of aerosol black carbon at Barrow, Alaska, and Wrangel Island, USSR: An approach to estimating the deposition of soot to snow and ice surfaces. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Schnell, R.C., P.J. Sheridan and **J.D. Kahl**, 1991: AGASP-III, Polar Lows and CEAREX Norwegian Arctic flight program, Spring 1989. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Sheridan, P.J., R.C. Schnell and **J.D. Kahl**, 1991: Individual particle analysis of the springtime Arctic aerosol, 1983-1989. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Jaffe, D.A., R.E. Honrath, **J.D. Kahl** and S.-M. Li, 1990: Nitrogen oxide measurements at Barrow, Alaska. Presented at the 41st Arctic Science Conference, Arctic Division of the AAAS, Anchorage, Alaska, October 1990.
- Kahl, J.D.** and R.C. Schnell, 1990: Air trajectory support for MISERS GOLD. In MISERS GOLD Symposium Report, Defense Nuclear Agency Report POR7352-2, J. Smith, ed., pp. 365-405.
- Kahl, J.D.**, A.D.A. Hansen and R.C. Schnell, 1989: A methodology for estimating regional emissions of black carbon aerosol in the Arctic. EURASAP International Conference on Aerosols and Background Pollution, Galway, Ireland.
- Schnell, R.C. and **J.D. Kahl**, 1989: Arctic haze: Long range pollution of the polar atmosphere. EURASAP International Conference on Aerosols and Background Pollution, Galway, Ireland.
- Kahl, J.D.**, 1989: Confidence limits on source-receptor relationships determined by ensemble trajectory analysis. Extended Abstracts Volume, Sixth Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.
- Hansen, A.D.A., B.A. Bodhaine, T.J. Conway and **J.D. Kahl**, 1989: Long-range transport of combustion plumes across the Arctic: Preservation of signature ratios of aerosol black carbon, CO₂, and CH₄. Presented at the 1989 Annual meeting of the American Association for Aerosol Research, Reno, Nevada.
- Kahl, J.D.** and P.J. Samson, 1988: Some limitations of rawinsondes for pollutant transport studies. Extended Abstracts Volume, Symposium on Lower Tropospheric Profiling: Needs and Technologies, American Meteorological Society.

- Kahl, J.D.**, J.M. Harris, G.A. Herbert and M.P. Olson, 1988: Intercomparison of long-range trajectory models applied to Arctic haze. In H. van Dop, ed., *Air Pollution Modeling and Its Application VII*, Plenum Press, New York, pp. 175-185.
- Schnell, R.C., **J.D. Kahl**, H.A. Bridgman and G.A. Herbert, 1988: A "major" Arctic haze event north of Point Barrow, Alaska, April 1986. Extended Abstracts Volume, Second International Conference on Polar Meteorology and Oceanography, American Meteorological Society.
- Schnell, R.C., **J.D. Kahl**, H.A. Bridgman, G.A. Herbert, B.A. Bodhaine and S.J. Oltmans, 1988: Aerosol formation and distribution in the Arctic during AGASP-II, March-April 1986. In *Atmospheric Aerosols and Nucleation*, P.E. Wagner and G. Vali, eds., Springer-Verlag, Berlin, 32-35.
- Oltmans, S.J., P.J. Sheridan, R.C. Schnell, R.E. Peterson, J.W. Winchester, L.A. Barrie, **J.D. Kahl** and W.D. Komhyr, 1988: Springtime surface ozone fluctuations at high Arctic latitudes and their possible relationship to atmospheric bromine. Presented at the IAMAP/IUGG Quadrennial Ozone Symposium, 8-13 August, Gottingen, FRG.
- Oltmans, S.J., P.J. Sheridan, R.C. Schnell, J.W. Winchester, L.A. Barrie and **J.D. Kahl**, 1988: Springtime surface ozone fluctuations at high Arctic latitudes and their possible relationship to atmospheric bromine. Presented at the Polar Ozone Workshop, 9-13 May, Snowmass, Colorado.
- Kahl, J.D.** and P.J. Samson, 1986: Quantification of interpolation errors in trajectory calculations. Extended Abstracts Volume, Fifth Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.
- Samson, P.J., J.L. Moody, **J. Kahl** and J. Keeler, 1986: Uncertainties in quantifying source-receptor relationships for atmospheric acids. In *The Chemistry of Multiphase Atmospheric Systems*, W. Jaeschke, ed., D. Reidel Publ. Co., Dordrecht, Holland, 727-740.
- Kahl, J.**, G.J. Keeler, M. Fernau and P.J. Samson, 1985: Evaluation of a regional-scale acid deposition model. Paper 85-5.2, presented at the 1985 annual meeting of the Air Pollution Control Association, Detroit, MI.
- Moody, J.L., **J. Kahl** and P.J. Samson, 1984: Initial investigation of the sensitivity of source-receptor relationships to nonlinear atmospheric transformation. In *Meteorology of Acid Deposition*, P.J. Samson, ed., Air Pollution Control Assoc., Pittsburgh, PA, 225-240.
- Kahl, J.**, G.J. Keeler and P.J. Samson, 1984: The sensitivity of sulfate source-receptor relationships to meteorological variability. Paper 84-25.6, presented at the 1984 annual meeting of the Air Pollution Control Association, San Francisco, CA.

PUBLICATIONS, continued:**Reports, theses, other [19]:**

Kahl, J.D.W., 2022: Clouds. Presented at the Urban Ecology Center's Backyard Naturalist Series, <https://www.youtube.com/watch?v=dtg1lsQu3mc>

Kahl, J.D.W., 2007: Obituary of David H. Miller. *Bulletin of the American Meteorological Society*, 88(1), p. 101.

Bravo A. H., Sosa E. R., Sanchez A. P., Alarcon J.A. L., Jaimes P. M., **Kahl J. D. W.**, Barrios R. J., Soto A. R., Bueno L. E., Gamboa A. R., Gamboa R. T., Abreu S. J., 2003: Evaluacion de la contaminacion atmosferica en el sur del Golfo de Mexico. Campana Oceanografica SGM-7 (noviembre-diciembre de 2002). Seccion de Contaminacion Ambiental, Centro de Ciencias de la Atmosfera, Instituto de Ciencias del Mar y Limnologia, UNAM.

Kahl, J.D.W., 2000: CNN Meteorology Today Volume 2, Video Worksheets. Brooks/Cole Publishing Co., Pacific Grove, CA, 42 pp.

Kahl, J.D.W., 1998: Balloons that rise, clouds that fall, and air that crushes. Presentation in the UWM Science Bag series. <https://www.youtube.com/watch?v=TncyWepYX24>

Kahl, J.D.W. and D.M. Bacon, 1997: Data Set Documentation for the Arctic Ocean Sounding Archive. National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado.

Kahl, J.D., R.S. Stone, M.C. Serreze, S. Shiotani and R.C. Schnell, 1992: Tropospheric temperature trends in the Arctic: 1958-1986. In *Climate Monitoring and Diagnostics Laboratory No. 20, Summary Report 1991*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Serreze, M.C., **J.D. Kahl** and S. Shiotani, 1992: The Historical Arctic Rawinsonde Archive Documentation Manual. Special Report No. 2, National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado.

Kahl, J.D., M.C. Serreze and R.C Schnell, 1992: The historical Arctic Rawinsonde Archive. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D., R.C. Schnell and P.J. Sheridan, 1992: Trajectory forecasting for Misers Gold. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D., M.C. Serreze and R.C Schnell, 1992: Temperature inversions in the Canadian Arctic. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D., 1991: A temperature inversion climatology for Barrow, Alaska: 1976-1985. In *Geophysical Monitoring for Climatic Change No. 18, Summary Report 1989*, W.D. Komhyr and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D. and S.M. Skony, 1990: Processing of historical meteorological data in the Arctic. Final report to NOAA, 125 pp.

Kahl, J.D. and R.C. Schnell, 1989: Air trajectory support for MISERS GOLD. Final report to the Defense Nuclear Agency, Washington, DC, Project No. DNA IACRO 89-855.

Kahl, J.D., 1989: Estimates of uncertainty in trajectory ensembles. In *Geophysical Monitoring for Climatic Change No. 17, Summary Report 1988*, J.W. Elkins, ed. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D. and A.D.A. Hansen, 1989: Determining Regional emissions of aerosol black carbon in the Arctic. In *Geophysical Monitoring for Climatic Change No. 17, Summary Report 1988*, J.W. Elkins, ed. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.

Kahl, J.D., 1987: Interpolation of synoptic-scale winds: Implications for boundary-layer trajectory accuracy. Ph.D. dissertation, University of Michigan, Ann Arbor, 199 pp.

Samson, P.J., M.E. Fernau, M.S. Halpert, **J.D. Kahl** and G.J. Keeler, 1984: Estimation of the potential and probable source regions for acid precipitation. Final Report to the Department of Energy, Project no. DOE-AC02-82ER60058.

Kahl, J.D., 1983: Sensitivity of sulfate source-receptor relationships to meteorological variability. Master's thesis, University of Michigan, Ann Arbor, 43 pp.

GRANTS:

2022: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) awards:
summer, \$3000
2022-23 academic year, \$3000

2021: UW-Milwaukee RAF (Research Assistance Funds) award: graduate student support, \$4700.

2020: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) awards:
summer, \$2000 (one student)
2020-2021 academic year, \$9000 (three students).

2020: UW-Milwaukee COVID-19 Sabbatical Relief award, \$950.

- 2019: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$3000.
- 2015: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Grant, \$250.
- 2014: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Liason Grant, \$1000.
- 2013: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Grant, \$500.
- 2013: UW-Milwaukee Center for International Education, Faculty Travel Grant, \$300.
- 2013: UW-Milwaukee WiscAMP (Wisconsin Louis Stokes Alliance for Minority Participation mentor award \$3,500.
- 2012: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$2000.
- 2011: UW-Milwaukee Sabbatical Enhancement Award, \$6,000.
- 2011: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$2000.
- 2011: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.
- 2010: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$3000.
- 2010: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.
- 2008: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.
- 2008: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award, \$500.
- 2006: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award, \$500.
- 2006: UW-Milwaukee Center For International Education, Faculty Travel Grant, \$500.
- 2005: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award: \$500.
- 2005: UW- Milwaukee Center for International Education, Faculty Travel Award: \$300.
- 2004: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award to support a visit and presentation of a seminar at the Atmospheric Sciences Center, National Autonomous University of Mexico, Mexico City, Mexico, \$500.
- 2003: Wisconsin Space Grant Research Consortium, “Student-Friendly Tools for Visualizing Arctic Climate Change”, \$23K.
- 2003: NASA, “Spatial and Temporal Variability in Fluxes, Source Regions, and Atmospheric Transport of Impurities on the Southern Greenland Ice Sheet: Implications for Ice-Sheet Elevation and Mass Balance”, co-investigator with J. McConnell (Desert Research Institute), \$100K.

- 2002: Center for Water Security, Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute, "Realtime Assessment of the Fate of Hazardous Atmospheric Material in the Great Lakes Basin", \$20K.
- 2002: Fulbright Scholar Program, Council for International Exchange of Scholars, U.S. Department of State, Bureau of Educational and Cultural Affairs, "Investigation of the sources and atmospheric transport pathways of air pollution contributing to the deterioration of ancient monuments in Mexico", \$18,000.
- 2001: UW-Milwaukee Center for Latin American and Caribbean Studies, "Research on Air Pollution in Mexico", \$500.
- 2000-02: Environmental Protection Agency. "Assessment of Atmospheric Transport Pathways". \$50K.
- 1999-02: National Science Foundation, Office of Polar Programs: "Seasonal differences in air-snow chemical relationships at Summit, Greenland". \$90K.
- 1999: University of Wisconsin System PK-16 Initiative, "Continuing and Enhancing the CoVis (Collaborative Visualization) Project with the Inclusion of a Mathematics Visualization Module - Year 2", \$33,215. Co-PI with R. O'Malley.
- 1998: University of Wisconsin System PK-16 Initiative, "Continuing and Enhancing the CoVis (Collaborative Visualization) Project with the Inclusion of a Mathematics Visualization Module", \$45,224. Co-PI with R. O'Malley.
- 1998: University of Wisconsin-Extension: "The UWM/MCW Center for Science Education CoVis Project", \$39,000. P.I.
- 1998: University of Wisconsin-Extension: "Implementation of a Merger between CoVis and the Mathematics Visualization Projects", \$10,000. Co-PI with R. O'Malley.
- 1997: Wisconsin Educational Communications Board: "A Pilot Project for Collaborative Science Education at Nicolet High School Using CoVis", \$20,000. Co-PI with M. Goodman.
- 1997-98: National Oceanic and Atmospheric Administration, Climate and Atmospheric Research Program: "Archaeology and Analysis of Historical Atmospheric Sounding Data in Arctic Regions". \$150,000.
- 1997-98: UW-Milwaukee Graduate School Research Committee Award, "Developing a Standard Atmosphere for the Polar Regions", \$12,000.
- 1996-97: National Science Foundation, "Air/Snow Transfer to the Greenland Ice Sheet During Winter", \$19,000.
- 1995-96: National Oceanic and Atmospheric Administration, Climate and Atmospheric Research Program: "Archival and Analysis of Historical Meteorological Sounding Data in the Arctic". \$70,000.
- 1993-95: National Science Foundation, "Long-Range Atmospheric Transport and its Relationship to Air/Snow/Ice Chemistry at Summit, Greenland". \$167,000.
- 1992-94: National Science Foundation, "Atmospheric Water Vapor over the Arctic and its Relationships with Synoptic Variability and Surface Conditions". Co-P.I. with M.C. Serreze and R.G. Barry, \$162,000.

- 1992-93: Electric Power Research Institute: "Atmospheric Transport Processes Influencing Visibility Degradation in the Grand Canyon". \$44,000.
- 1991: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory: "Numerical Modeling of Turbulent Diffusion in the Arctic". \$6,200.
- 1990-92: National Oceanic and Atmospheric Administration, Climate and Global Change Program, "Development and Trend Analysis of an Arctic TOVS Temperature Sounding Record". Co.I. with S.J.S. Khalsa (P.I.), R.C. Schnell (Co.I.) and M.C. Serreze (Co.I.), \$274,000
- 1990: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory, "Processing of Historical Meteorological Data in the Arctic". \$5,000.
- 1989-91: National Science Foundation, "Climatology of the Arctic Planetary Boundary Layer and Temperature Inversion". P.I. with R.C. Schnell, \$66,000.
- 1989-91: National Oceanic and Atmospheric Administration, Climate and Global Change Program, "Acquisition, Assimilation and Trend Analysis of Historical Temperature Sounding Data in the Arctic". Co-P.I. with R.C. Schnell, \$243,000.
- 1989-91: Electric Power Research Institute: "Arctic Climate Trends Analysis". Co-P.I. with R.C. Schnell and M.C. Serreze, \$91,000.
- 1989-90: Defense Nuclear Agency, "MISERS GOLD Trajectory Support". Co-P.I. with R.C. Schnell, \$56,000.
- 1985-87: Electric Power Research Institute, "Uncertainty in Estimating Atmospheric Transport over Regional Scales". Student Investigator, P.J. Samson, P.I. \$60,000.

PARTICIPATION IN FIELD EXPERIMENTS:

US-Russia Arctic Research Support Planning Mission, Cherskiy (Kolyma Region), Siberia, Russia, April 1993. <http://youtu.be/GGKNzYN3BtE>

MISERS GOLD Air Trajectory Forecasting Support, Silver Spring, MD, May-June 1989.

PRECP VI, Champaign, Illinois, June 1988.

CONFERENCE ORGANIZATION:

Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 21-25 September 2008:

- keynote speaker
- member of the International Scientific Committee

Session chair for Session 2, Large Scale Atmospheric Characteristics, Fourth AMS Conference on Polar Meteorology and Oceanography, Dallas, Texas, 15-20 January 1995.

Session leader for Session FM6, Regional Meteorological Patterns, Regional Photochemical Measurement and Modeling Studies Symposium, San Diego, California, 7-12 November 1993.

Session co-chair for Session 5, Transport and Radiation, Symposium on the Tropospheric Chemistry of the Antarctic Region, Boulder, Colorado, 3-6 June 1991.

REVIEWER FOR:

Technical journals:

<i>Aerosol and Air Quality Research</i>	<i>Journal of the Air and Waste Management Association</i>
<i>Assessment and Evaluation in Higher Education</i>	<i>Journal of Applied Meteorology and Climate</i>
<i>Atmosfera</i>	<i>Journal of Atmospheric and Oceanic Technology</i>
<i>Atmosphere</i>	<i>Journal of Climate</i>
<i>Atmosphere-Ocean</i>	<i>Journal of Cultural Heritage</i>
<i>Atmospheric Chemistry and Physics</i>	<i>Journal of Environmental Engineering and Science</i>
<i>Atmospheric Environment</i>	<i>Journal of Environmental Protection</i>
<i>Atmospheric Pollution Research</i>	<i>Journal of Geophysical Research – Atmospheres</i>
<i>Atmospheric Research</i>	<i>Journal of Geophysical Research – Oceans</i>
<i>Boundary-Layer Meteorology</i>	<i>Journal of Glaciology</i>
<i>Bulletin of the American Meteorological Society</i>	<i>Journal of Meteorological Research</i> (formerly <i>Acta Meteorologica Sinica</i>)
<i>Chemosphere</i>	<i>Meteorological Applications</i>
<i>Climate Dynamics</i>	<i>Open Journal of Air Pollution</i>
<i>Dynamics of Atmospheres and Oceans</i>	<i>Nature</i>
<i>Earth and Space Science</i>	<i>Nature/Scientific Reports</i>
<i>Energy Reports</i>	<i>PLOS One</i>
<i>Environmental Pollution</i>	<i>Physics and Chemistry of the Earth</i>
<i>Environmental Science and Technology</i>	<i>Polar Record</i>
<i>Geology, Ecology and Landscapes</i>	<i>Quarterly Journal of the Royal Meteorological Society</i>
<i>Geophysical Research Letters</i>	<i>Science of the Total Environment</i>
<i>Global Biogeochemical Cycles</i>	<i>Sustainability</i>
<i>Hydrological Processes</i>	<i>Tellus</i>
<i>International Journal of Biometeorology</i>	<i>Theoretical and Applied Climatology</i>
<i>International Journal of Environmental Research and Public Health</i>	<i>Toxics</i>
<i>International Journal of Climatology</i>	<i>Weather and Forecasting</i>
<i>Journal of Agricultural, Biological and Environmental Statistics</i>	

Funding agencies:

<i>National Science Foundation (NSF)</i>	<i>National Oceanic and Atmospheric Administration (NOAA), Climate and Global Change Program</i>
<i>National Aeronautics and Space Administration (NASA)</i>	<i>Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)</i>

*U.S. Civilian Research and Development
Foundation (CRDF)*
Environmental Protection Agency (EPA)
International Science Foundation (ISF)
*Cornell Theory Center (Center for Theory
and Simulation in Science and
Engineering)*
Hong Kong Research Grants Council

*New Zealand Foundation for Research,
Science and Technology*
Swiss National Science Foundation
*U.K. Natural Environment Research
Council*
Icelandic Centre for Research
University of Texas-San Antonio
*Mexico National Council of Science and
Technology (CONACyT)*

Book publishers, popular magazines:

Intergovernmental Panel on Climate Change
(IPCC): Second Scientific Assessment of
Climate Change
American Geophysical Union monograph
series
National Geographic magazine
Cambridge University Press
Elsevier

West Educational Publishing
University of Wisconsin Press
Brooks/Cole Publishing
Gareth Stevens Publishing
Scholastic, Inc.
Springer-Verlag
Carolrhoda Books

PROFESSIONAL MEMBERSHIPS:

American Meteorological Society, American Geophysical Union, Greater Milwaukee Chapter of the American Meteorological Society (offices held: President, Vice-President, Treasurer).

PARTICIPATION ON ADVISORY AND REVIEW PANELS:

Council for International Exchange of Scholars (CIES) 2007-08 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 18-19 October 2007.

National Science Foundation, Collaborations in Mathematical Geosciences review panel, Arlington, VA, 4-6 June 2007.

Council for International Exchange of Scholars (CIES) 2007-08 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 5-6 October 2006.

Council for International Exchange of Scholars (CIES) 2006-07 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 12-13 February 2006.

NSF/CONACyT International Workshop on the Influence of Air Quality on Mayan Monuments in Mesoamerica, Cancun, Mexico, 17-21 October 2005.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 12-13 September 2004.

Environmental Protection Agency (EPA) proposal review panel, "Assessing the consequences of global change for air quality", Washington, DC, 11-12 December 2002.

National Science Foundation Arctic Workshop, West Lafayette, IN, 10-12 November 2002.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 21-22 August 2002.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 12-13 September 2001.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 13-14 September 2000.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Proposal Review panel, Washington, DC, 18 August 2000.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Metro Grants Proposal Review panel, Washington, DC, 13-14 July 2000.

Environmental Protection Agency (EPA) Exploratory Research Proposal Review panel, Washington, DC, 27-28 October 1999.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Metro Grants Proposal Review panel, Washington, DC, 13-14 July 1999

Environmental Protection Agency (EPA) Project MOHAVE Review Panel, 1998-1999

Environmental Protection Agency (EPA) Exploratory Research Proposal Review panel, Durham, NC, 29-31 March 1993

Workshop on Ozone Research Monitoring and Tracking Progress, Environmental Protection Agency (EPA), Research Triangle Park, North Carolina, 22 September 1992.

Workshop on Snow/Atmospheric Chemical Exchange, sponsored by the National Science Foundation under the auspices of the International Commission on Snow and Ice, Durham, New Hampshire, 6-7 March 1992.

Environmental Protection Agency (EPA) Project MOHAVE Planning Workshop, Denver, Colorado, 30 April - 1 May 1991.

UNIVERSITY COURSES TAUGHT (at University of Wisconsin-Milwaukee):

Required courses for Atm Sci majors: *Air Pollution Meteorology*, graduate/undergraduate
Introduction to Meteorology, undergraduate
Atmospheric Thermodynamics, graduate/undergraduate

Elective courses for Atm Sci majors: *Micrometeorology*, graduate/undergraduate
Air Pollution Modeling, graduate
Mexico: Air Pollution and Ancient Cultures
 (faculty-led study abroad course), graduate/undergraduate
Scientific Programming using FORTRAN, graduate/undergraduate

Service courses: *Survey of Meteorology*, undergraduate
Earth, Air, Fire and Water, undergraduate

Principles of Forecasting the Weather, undergraduate
Thunderstorms, Tornadoes and Hurricanes, undergraduate
The Origin, Composition, and Structure of the Planetary Atmospheres,
 undergraduate
Trigonometry, undergraduate
Essentials of Algebra, undergraduate
Algebraic Literacy I, undergraduate

Freshman Seminar: *There's No Zone Like the Ozone: Environmental Aspects of Weather*

GRADUATE STUDENT ADVISEES (UW-Milwaukee unless otherwise indicated):

Danica Brezovar (M.S. expected in 2024)	Thesis: "Forecasting peak wind gusts using mixdown altitudes"
Victoria Lang (M.S. 2022)	Thesis: "Do state fairs with fireworks displays impact PM2.5 levels in nearby communities?"
Shayna Fever (M.S. 2021)	Thesis: "Investigating the potential of a combined air quality-heat index in predicting mortality"
Teresa Turner (M.S. 2020)	Thesis: "Predicting Peak Wind Gusts During Specific Weather Types with the Meteorologically Stratified Gust Factor Model"
Chelsea Picha (M.S., 2018)	non-thesis option
Lily Chapman (M.S., 2017)	Thesis: "Performance test of the Pasquill Stability Classification Scheme"
Austin Harris (M.S., 2016)	Thesis: "On establishing a climatology of gust factors and assessing their ability to forecast wind gusts in Milwaukee, Wisconsin"
Rolando Olivas Saunders (Ph.D, 2013)	Dissertation: "Improved estimation of PM _{2.5} using Lagrangian satellite-derived aerosol optical depth". http://dc.uwm.edu/cgi/viewcontent.cgi?article=1147&context=etd
Diana Maribel Facundo Torres (Ph.D, 2011) Monterrey, Mexico	Dissertation: " Atmospheric deposition in an industrial zone in northeast Mexico ". (J. Kahl was an external reviewer.)
Evangelina Ramírez (Ph.D, 2010) University of Nuevo Leon, Monterrey, Mexico	Dissertation: "Development of a model for the evaluation of emissions for acid deposition". (J. Kahl was an external advisor.)

Thishan Dharshana (M.S., 2009)	Thesis: "Relationship between daily weather conditions and particulate matter air pollution over the United States" (J. Kahl and Prof. S. Kravtsov, co-advisors)
Laura Carnahan (M.S., 2009)	Thesis: "Statistical significance testing for trajectory grouping techniques"
Megan Carter (M.S., 2006)	Thesis: "Atmospheric transport climatology of snow days in Greenland"
N. Manju (Ph.D, 2005) University of Madras, India	Dissertation: "Assimilative capacity and atmospheric dispersion modeling studies for an industrial zone of ". Chennai (J. Kahl was an external reviewer.)
Kazumi Nakada (M.S., 2005)	non-thesis option
Jessica Miller (M.S., 2002)	Thesis: "A three-dimensional residence time analysis of potential transport to two locations"
Jennifer Galbraith (M.S., 1997)	Thesis: "Long-range Atmospheric Transport to the Summit of the Greenland Ice Sheet"
Desong Liu (M.S., 1994)	Thesis: "The Meteorological Feasibility of Controlling Emissions along Clean-Air Corridors to the Grand Canyon"
Suzanne Skony (M.S., 1992)	Thesis: "Thermal Structure of the Lower Troposphere Over the Western Arctic Ocean"
John Roth (M.S., 1991)	Thesis: "A Study of the Relationship Between Atmospheric Transport and Summer Weather Types in Northeastern Colorado Using Cluster Analysis"

UNDERGRADUATE STUDENT RESEARCH ADVISEES (UW-Milwaukee):

Kacper Zaprzalka 2022-23
 Dao Wang 2020-21
 Gus Kaiser 2020-21
 Brandon Selbig 2019-21
 Erica Scotty 2012-13
 Kevin Horwitz 2002-03
 Martin Pulrang 2000-02
 Mark Jansen 2000-01
 Dewayne Martinez 1995-98
 Donna Charlevoix 1992-93