

# Curriculum Vitae

---

DAVID A. BRAATEN

**Associate Professor**  
Geography Department  
1475 Jayhawk Blvd.  
The University of Kansas  
Lawrence, Kansas 66045  
Voice: (785) 864-3801  
Fax: (785) 864-5378

**Deputy Director**  
Center for Remote Sensing of  
Ice Sheets (CReSIS)  
2335 Irving Hill Road  
The University of Kansas  
Lawrence, Kansas 66045  
Voice: (785) 864-7790

**E-mail: braaten@ku.edu**

## Education

**Ph.D.**, Atmospheric Science 1988, University of California - Davis.

Dissertation Title: *Particle resuspension and associated coherent structures in a turbulent boundary layer.*

**M.S.**, Meteorology 1981, San Jose State University, San Jose, California.

Thesis Title: *Long range transport of visibility reducing pollutants in the southwest U.S.*

**B.S.**, Meteorology 1977, State University of New York – Oswego.

## Employment

**Deputy Director**, 2005 - present, Center for Remote Sensing of Ice Sheets (CReSIS), University of Kansas.

**Associate Professor**, 1995 - present, University of Kansas, Geography Department (Prior to 6/2003, Dept. Physics and Astronomy)

**Visiting Scientist**, 1996-1997, Laboratory for Nuclear and Environmental Chemistry, Paul Scherrer Institute, Switzerland. Academic year sabbatical leave from the University of Kansas.

**Assistant Professor**, 1989 - 1995, University of Kansas, Dept. Physics and Astronomy

**Postgraduate Researcher V**, 1988 - 1989 University of California, Davis, Dept. of Land, Air & Water Resources

**Meteorologist**, 1977-1980, H.D.R., Inc., Sciences Division, Santa Barbara, CA

## Courses Taught at the University of Kansas

Introduction to Meteorology  
Air Pollution Meteorology

Unusual Weather  
Seminar for Seniors

Dynamic Meteorology

Advanced Dynamic Meteorology

## Professional Society Memberships

American Meteorological Society

IEEE

American Polar Society

American Geophysical Union

Sigma Pi Sigma

## Research Activities

- Deputy Director and co-founder of the Center for Remote Sensing of Ice Sheets (CReSIS) at the University of Kansas. CReSIS was one of two Science and Technology Centers established by the National Science Foundation in 2005. The vision of the Center is to understand and predict the role of polar ice sheets in sea-level change.
- Managed the outreach program of the Polar Radars for Ice Sheet Measurements (PRISM) project at the University of Kansas.
- Field experience in Antarctica (five field seasons) and Greenland (four field seasons).
- Participation with SEAWINDS science team.
- Chaired a workshop in 1998 on aviation weather hazards at the University of Kansas sponsored by NSF-EPSCoR, FAA and the U.S. Weather Research Program.
- Designed and deployed an instrumentation system called the Microsphere Dispersal System (MDS) which provides a detailed characterization snow accumulation in hostile polar or alpine environments for periods of up to one year. Used the system to characterize snow accumulation processes in Antarctic regions dominated by katabatic winds. Sponsored a high school teacher and student under NSF's Antarctic Research Experiences Program.

## Current Funded Projects

*Radar Soundings of fast flowing glaciers in Greenland*, NASA, S. Gogineni, PI, **D. Braaten**, co-PI, \$503,000., 12/1/05 – 11/30/08.

*A Geographic Information System (GIS) Application to Ice Sheet Mapping and Mass Balance Analysis*, NASA, **D. Braaten**, PI, Earth System Science (ESS) Graduate Student Fellowship awarded to **Joel Plummer**, \$72,000., 8/1/05 – 7/31/08.

*Science and Technology Center: Ice Sheets and Sea Level Rise*, NSF, S. Gogineni, PI, **D. Braaten**, co-PI, \$19,000,000., 6/1/05 – 5/31/10.

*Mobile Sensor Web for Polar Ice Sheet Measurements*, NSF/NASA, S. Gogineni, PI, **D. Braaten**, A. Agah, G. Prescott, C. Allen, V. Frost, C. Tsatsoulis, co-PI's, \$8,700,000., 10/01 – 10/06.

*Radar sounding and airborne high-resolution mapping of near-surface layers of the Greenland Ice Sheet*, NASA, S. Gogineni, PI, **D. Braaten**, co-PI, \$630,000., 8/15/02 – 8/14/05.

*High Resolution and Plane Wave Mapping of Near-Surface Layers*, NSF, P. Kanagaratnam, PI, **D. Braaten**, co-PI, \$221,000., 7/15/03 – 7/1/06.

## Recent Administrative Committees

Faculty Affairs Committee, (Geography; Physics & Astro.), 2001 – 2006.  
 Chair, Faculty Search Committees (Geography Dept.) 2003-04, 2005-2006.  
 Evaluation of Chairpersons and Directors Committee (CLAS), 1999 – 2002.  
 Space Committee, (Geography; Physics & Astro.), 1997 – 2005.

## Publications

Gogineni, S., P. Kanagaratnam, T. Akins, **D. Braaten**, and K. Jezek, 2005: Wideband Synthetic Aperture Radar Imaging of Sub-Surface Interfaces in Glacial Ice, Invited paper, *Proceedings, 6th European Conference on Synthetic Aperture Radar*, Dresden, Germany

Gogineni, S., **D. Braaten**, C. Allen, and G. Prescott, 2005: Strategic and Implementation Plan, Center for Remote Sensing of Ice Sheets, available at: [http://www.cresis.ku.edu/ Website%20SI%20Plan.pdf](http://www.cresis.ku.edu/Website%20SI%20Plan.pdf), 24 pp.

Gogineni, S., **D. Braaten**, C. Allen, G. Prescott, and the STC team, 2005: An Introduction to the Center for Remote Sensing of Ice Sheets (CRISIS), *Proceedings, Program in Arctic and Climate Assessment (PARCA)*, Baltimore, MD, 24-26 October, 2005.

Gogineni, S., **D. Braaten**, P. Kanagaratnam, T. Akins, V. Ramasami, C. Veeramachaneni, and J. Plummer, 2005: Airborne Radar Measurements Over Greenland in 2005, and Signal Processing Accomplishments, *Proceedings, Program in Arctic and Climate Assessment (PARCA)*, Baltimore, MD, 24-26 October, 2005.

Moore, R. K., **D. Braaten**, V. J. Kurisunkal, B. Natarajakumar, G. K. Narayanan, J. Arockiam, 2005: Correcting wind scatterometers for rain, *Proceedings, XXVIII<sup>th</sup> URSI General Assembly*, New Delhi, India, 23-29 October, 2005.

Gogineni, S., K. Jezek, J. Paden, C. Allen, P. Kanagaratnam, T. Akins, and D. Braaten, 2005: Radar imaging and sounding of polar ice sheets, *Proceedings, XXVIII<sup>th</sup> URSI General Assembly*, New Delhi, India, 23-29 October, 2005.

Kanagaratnam, P., S. Gogineni, V. Ramasami and **D. Braaten**, 2004: A wideband radar for high-resolution mapping of near-surface internal layers in glacial ice, *IEEE Trans. Geosci. Remote Sensing*, 42, 483-490.

Rignot, E., **D. Braaten**, S. P. Gogineni, W. B. Krabill, and J. R. McConnell, 2004: Rapid ice discharge from southeast Greenland glaciers, *Geophys. Res. Lett*, 31 (10), L10401, doi: 10.1029/2004GL019474.

Natarajakumar, B., V. Kurisunkal, R. K. Moore, **D. Braaten**, 2004: Rain heights over the oceans: Relation to rain rates, *Proceedings, URSI Commission F Triennium Open Symposium*, Great Barrier Reef, Cairns, Australia, 1-4 June, 2004.

**Braaten, D.**, J. Holvoet, and S. Gogineni, 2004: Virtual PRISM – On the Ice via the Web with the PRISM Project. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Anchorage, Alaska.

Mohammad, A., **D. Braaten**, V. Frost, and G. Prescott, 2004: Multi-channel Iridium communications for polar field experiments. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Anchorage, Alaska.

R.K. Moore, **Braaten, D.**, B. Natarajakumar, V. J. Kurisunkal, 2004: Correcting SeaWinds measurements for convective rain that only partially fills the scatterometer footprint.. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Anchorage, Alaska.

**Braaten, D.**, J. Holvoet, C. Bowen, M. Koeppe, and S. Gogineni, 2003: Outreach activities of the polar radar for ice sheet measurements (PRISM) project. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Toulouse, France.

Moore, R.K., **D. Braaten**, B. Natarajakumar, V. J. Kurisunkal, 2003: Correcting scatterometer ocean measurements for rain effects using radiometer data: Application to SeaWinds on ADEOS-2. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Toulouse, France.

Ramasami, V., Gogineni, S., B. Holt, P. Kanagaratnam, K. Gurumoorthy, S.K. Namburi, J. Henslee, **D. Braaten**, A. Mahoney, and V. Lytle: 2003: A low frequency wideband depth sounder for sea ice. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Toulouse, France.

Gogineni, S., G. Prescott, **D. Braaten**, C. Allen, and the PRISM team, 2003: Polar Radar for Ice Sheet Measurements. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Toulouse, France.

**Braaten, D.**, S. Gogineni, D. Tammana, S.K. Namburi, J. Paden, and K. Gurumoorthy, 2002. Improvement of radar ice thickness measurements of Greenland outlet glaciers using SAR processing. *Annals of Glaciology*, 35, 73-78.

**Braaten, D.A.** and S. Gogineni, 2002: Radar measurements of ice sheet thickness of outlet glaciers in Greenland. Proceeding, International Geoscience and Remote Sensing Symposium (IGARSS), Toronto.

Gogineni, S., D. Tammana, **D. Braaten**, C. Leuschen, T. Akins, J. Legarsky, P. Kanagaratnam, J. Stiles, C. Allen, and K. Jezek, 2001: Coherent radar ice thickness measurements over the Greenland Ice Sheet. *J. Geophys. Res.* 106, (D24), 33,761-33,772.

**Braaten, D.A.**, 2000: Direct measurements of episodic snow accumulation on the Antarctic Polar Plateau, *Journal of Geophysical Research – Atmospheres*, 105 (D8), 10119 - 10128.

**Braaten, D.A.**, and K.L. Ratzlaff, 1998: An automated tracer dispersal system for snow accumulation and transport investigations. *Rev. Sci. Instruments* 69 (2), 572-577.

**Braaten, D.A.**, 1997: A detailed assessment of snow accumulation in katabatic wind areas on the Ross Ice Shelf, Antarctica, *J. Geophys. Res.* 102 (D25), 30,047-30,058.

**Braaten, D.A.**, and K.T. Paw U, 1996: A stochastic model of particle reentrainment- deposition in turbulent boundary layers. *J. Aerosol Sci.* 27, S601-S602.

Roshanaei, H., and **D.A. Braaten**, 1996: Indoor sources of airborne particulate matter in a museum and its impact on works of art. *J. Aerosol Sci.* 27, S443-S444.

**Braaten, D.A.**, 1995: A new technique to provide high time resolution snowpack dating for stratigraphy and chemistry assessments. *Atmos. Environ.* 29, 2535-2539.

Paw U, K.T. and **D.A. Braaten**, 1995: New perspectives on rebound and reentrainment processes. *Aerosol Sci. Technol.* 23, 72-79.

**Braaten, D.A.** 1994: Wind tunnel experiments of large particle reentrainment-deposition and development of large particle scaling parameters. *Aerosol Sci. Technol.*, 21, 157-169.

**Braaten, D.A.**, R. H. Shaw, and K.T. Paw U, 1993: Boundary-layer flow structures associated with particle reentrainment. *Boundary-Layer Meteorology*, 65, 255-272.

**Braaten, D.A.**, and K.T. Paw U, 1992: A net deposition model. *Aerosol Sci. Technol.*, 17, 289-302.

Paw U, K.T. and **D.A. Braaten**, 1992: Experimental evidence of the importance of rebound in net deposition of particles. *Aerosol Sci. Technol.*, 17, 278-288.

**Braaten, D.A.** and K.T. Paw U, 1992: A stochastic particle resuspension and deposition model. *Precipitation Scavenging and Atmospheric Surface Exchange*. Vol. 2, pp 1143-1152, Hemisphere, Washington.

**Braaten, D.A.**, K.T. Paw U, and R.H. Shaw, 1990: Particle resuspension in a turbulent boundary layer - Observed and modeled. *J. Aerosol Sci.*, 21 (5), 613-628.

**Braaten, D.A.**, K.T. Paw U, and R.H. Shaw, 1988: Coherent turbulent structures and particle detachment in boundary layer flows. *J. Aerosol. Sci.*, 19 (7), 1183-1186.

Raabe, O.G., **D.A. Braaten**, R.L. Axelbaum, S.V. Teague, and T.A. Cahill, 1988: Calibration studies of the DRUM impactor. *J. Aerosol. Sci.*, 19 (2), 183-195.

**Braaten, D.A.**, and T.A. Cahill, 1986: Size and composition of Asian dust transported to Hawaii. *Atmos. Environ.* 20 (6), 1105-1109.

## Other Publications

Rink, T., P. Kanagaratnam, **D. Braaten**, K. Mullenberg, T. Akins, and S. Gogineni, 2005: A Fine-Resolution Radar for Mapping Near-Surface Isochronous Layers. *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract IN13B-1091.

Gogineni, S., P. Kanagaratnam, R. Parthasarathy, T. Akins, **D. Braaten**, K. Jezek, , 2004: Ultra wideband radar mapping of near surface internal layers: Systems, results and analysis. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract C41D-01.

Studinger, M., C.A. Finn, R.E. Bell, S. Gogineni, L. Hayden, and **D. Braaten**, 2004: GAMBIT – Gamburtsev aerogeophysical mapping of bedrock and ice targets during IPY. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract C21A-0972.

**Braaten, D.**, S. Gogineni, T. Akins, P. Kanagaratnam, R. Parthasarathy, and C. Allen, 2004: Advanced radar systems for airborne ice thickness measurements and near-surface internal layer mapping. Proceedings, Workshop on Science Opportunities for a Multidisciplinary Long-Range Aircraft for Antarctic Research (LARA), Herndon, VA.

**Braaten, D.A.**, J.F. Holvoet, S. Gogineni, 2003: Web-based tools for educators: Outreach activities of the Polar Radar for Ice Sheet Measurements (PRISM) project. *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract ED21B-1217.

Parthasarathy, R., P. Kanagaratnam, T. Akins, J. Wuite, **D. Braaten**, K. Jezek, S. Gogineni, 2003: Fine-resolution mapping of near-surface internal layers. *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract C11C-0843.

Chalishazar, N., G. Prescott, **D. Braaten**, 2003: A high speed, long-range mobile communications link for use in Polar Regions. *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract C41C-1001.

Mohammad, A., V. Frost, **D. Braaten**, 2003: Results of an Iridium-based data communications system providing Internet access to polar expeditions. *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract C12A-0863.

Moore, R.K., **D. Braaten**, B. Natarajakumar, V. J. Kurisunkal, 2003: Correcting SeaWinds measurements for rain effects using AMSR data. Proceedings, Ocean Wind Vector Meeting, Jan 14-16, Oxnard, CA.

**Braaten, D.**, P. Kanagaratnam, T. Akins, S. Gogineni, 2003: Measurement of thickness of the Greenland ice sheet and high-resolution mapping of internal layers. Technical Report, RSL 20780-2.

**Braaten, D.**, S. Gogineni, and the PRISM team, 2002: An Overview of the Polar Radar for Ice Sheet Measurements (PRISM) Project. 9th Annual West Antarctic Ice Sheet (WAIS) Workshop, Sterling, VA.

Moore, R.K., **D. Braaten**, B. Natarajakumar, V. J. Kurisunkal, 2002: Correlation of rain rate and rain height: A study relating to correction of seawinds scatterometer data for rain. Proceedings, 27<sup>th</sup> URSI General Assembly, Maastricht, The Netherlands.

P. Kanagaratnam, B. Parthasarathy, T. Plummer, T. Akins, **D. Braaten** and S.P. Gogineni, 2002: A High-Resolution Airborne Radar System for Near Surface Mapping of Internal Layers to Estimate Accumulation Rate, Proceedings, 32nd European Microwave Conference, September, 24 – 26, 2002, Milan, Italy.

Moore, R. K., **D. Braaten**, and S. Taherion, 2001: Correction of Seawinds Measurements Based on TRMM Rain-Height Measurements, presented at the Specialist Meeting on Microwave Remote Sensing, 5-9 November, Boulder, Colorado.

**Braaten, D.A.**, and D. Tucker, 2001: A ceiling and visibility prediction system suitable for Antarctic flight operations. Preprints, *Sixth Conference on Polar Meteorology and Oceanography*, American Meteorological Society, 365-366.

**Braaten, D.**, D. Tucker, C. Pan, I. Jirak, and P. Browning, 2000: Identification of key parameters for aviation forecasts of ceiling and visibility, Preprints, *Antarctic Weather Forecasting Workshop (NSF)*, Ohio State University, pp. 59-62.

**Braaten, D.**, I. Jirak, D. Tucker, C. Pan, and P. Browning, 2000: Key parameters in forecasting IFR conditions: Two case studies. Preprints, *Ninth Conference on Aviation, Range, and Aerospace Meteorology*, American Meteorological Society, Boston, MA., pp. 165-166.

Tucker, D., D. Crnkovich, D. McCann, and **D. Braaten**, 2000: An investigation of clear air versus in cloud turbulence. Preprints, *Ninth Conference on Aviation, Range, and Aerospace Meteorology*, American Meteorological Society, Boston, MA., pp. 212.

Pan, C., I. Jirak, D. Tucker, **Braaten, D.**, P. Browning, and D. Beusterien, 2000: Improvement of terminal area forecasts. Preprints, *Ninth Conference on Aviation, Range, and Aerospace Meteorology*, American Meteorological Society, Boston, MA., pp. 377-380.

**Braaten, D.**, and M. Wu, 1999: Assessment of sublimation algorithm parameters on observed snow height changes in Greenland, *EOS Transactions*, 80, F236.

Droegemeier, K.K., **D.A., Braaten**, and D. Rodenhuis, 1999: Report of the first study conference on aviation weather hazards. Eighth Conference on Aviation, Range, and Aerospace Meteorology, American Meteorological Society, Boston, MA., pp. 27-32.

**Braaten, D.A.**, 1999: Direct measurements of episodic snow accumulation in Antarctica. *Fifth Conference on Polar Meteorology and Oceanography*, American Meteorological Society, Boston, MA., pp. 124-125.

**Braaten, D.A.**, 1998: Direct measurements of episodic snow accumulation on the Antarctic polar plateau. Chapman Conference on the West Antarctic Ice Sheet, Orono, ME, pg. 40.

**Braaten, D.A.**, M. Schwikowski, U. Baltensperger, and C. Fierz, 1998: An investigation of the role of vertical temperature gradients in snow on changes in snow chemistry. Annual Report 1997, Laboratory for Radiation and Environmental Chemistry, University of Bern and Paul Scherrer Institute (Switzerland).

**Braaten, D.A.**, 1997: The role of winds on the growth of polar ice sheets. *Eos (Supplemental Issue)*, 78 (46).

**Braaten, D.A.**, 1997: Precipitation, winds, and net snow accumulation: What's really going on? *4th Conference on the West Antarctic Ice Sheet*, Sterling, VA.

- Braaten, D.A.**, M. Schwikowski, U. Baltensperger, 1997: Assessment of snow accumulation dynamics on a high alpine snow field using glass microspheres. Annual Report 1996, Laboratory for Radiation and Environmental Chemistry, University of Bern and Paul Scherrer Institute (Switzerland), 13.
- Muldumala, K. and **D.A. Braaten**, 1997: The Role of Gravity in the Reentrainment-Deposition Trajectories of Large Particles. *American Association of Aerosol Research*, Cincinnati, OH, pg. 479.
- Braaten, D.A.**, 1997: Characterization of Seasonal Snow Accumulation on the Ross Ice Shelf, Antarctica. *Antarctic Journal of the U.S.*, 32(5), 50-52.
- Stewart, J., **D.A. Braaten**, and C. Bennett, 1997: Characterization of Wind Generated Snow Surface Features on the Ross Ice Shelf. *Antarctic Journal of the U.S.*, 32(5), 48-50.
- Braaten, D.A.**, 1996: Temporal variation of snow accumulation rate at two Ross Ice Shelf locations influenced by katabatic winds. *Antarctic Journal of the U.S.*, 31(2), 235-236.
- Paw U, K.T., H.B. Su, and **D.A. Braaten**, 1996: The usage of structure functions in estimating water vapor and carbon dioxide exchange between plant canopies and the atmosphere. 22nd Conference on Agricultural and Forest Meteorology, American Meteorological Society, Boston, MA.
- Braaten, D.A.**, 1995: Assessment of snow accumulation and transport dynamics using glass microspheres. *Antarctic Journal of the U.S.*, 30(5), 331-332.
- Braaten, D. A.**, 1995: Experimental evaluation of a stochastic particle resuspension and deposition model. *American Association of Aerosol Research*, Cincinnati, OH, pg. 405.
- Rockey, C.C. and **D.A. Braaten**, 1995: Characterization of polar cyclonic activity and relationship to observed snowfall events at McMurdo Station, Antarctica. *Fourth Conference on Polar Meteorology and Oceanography*, American Meteorological Society, Boston, MA.
- Braaten, D.A.**, 1994: Instrumentation to quantify snow accumulation and transport dynamics at two locations on the Ross Ice Shelf. *Antarctic Journal of the United States* 29(5), 86-87.
- Braaten, D.A.**, 1993: Particle reentrainment in transition boundary layers. *American Association of Aerosol Research*, Cincinnati, OH, pg. 118.
- Paw U, K.T., and **D.A. Braaten**, 1993: Large aerosol rebound or reentrainment: Who wins after all these years. *American Association for Aerosol Research*, Cincinnati, OH, pg. 336.
- Braaten, D.A.**, 1993: Instrumentation to quantitatively measure dynamic snow accumulation processes in remote regions. *Eighth Symposium on Meteorological Observations and Instrumentation*, American Meteorological Society, Boston, MA, pp. 72-73.
- Braaten, D.A.**, and G.A.M. Dreschhoff, 1993: Maximum and minimum temperature trends at McMurdo Sound Station. *Antarctic Journal of the United States*, 25, 282-283.

**Braaten, D.A.**, 1992: Experimental determination of large particle migration scaling parameters. *American Association for Aerosol Research*, San Francisco, CA, pg 76.

**Braaten, D.A.**, 1991: Book review of "The RAINS model of acidification: Science and strategies in Europe". *Bull. Amer. Meteor. Soc.* 72, 640-643.

**Braaten, D.A.**, and K.T. Paw U, 1990: A net deposition model. *American Association for Aerosol Research*, Philadelphia, PA, pg 145.

Paw U, K.T., and **D.A. Braaten**, 1989: Oblique deposition of pollen spores. *Ninth Conference on Biometeorology and Aerobiology*, American Meteorological Society, Boston, MA, pp. 251-252.

**Braaten, D.A.**, K.T. Paw U, and R.H. Shaw, 1988: Single point detection coherent turbulence associated with energetic wall shear stress. *Eighth Symposium on Turbulence and Diffusion*, American Meteorological Society, Boston, MA.

**Braaten, D.A.**, 1988: Particle resuspension and associated coherent structures in a turbulent boundary layer, Ph.D. Dissertation, University of California, Davis, 175 pp.

**Braaten, D.A.**, R.H. Shaw, and K.T. Paw U, 1986: Particle detachment in turbulent boundary layers. In: *Aerosols, Formation and Reactivity*, Proceedings of the Second International Aerosol Conference, West Berlin, Pergamon Press, Oxford.

Raabe, O.G., **D.A. Braaten**, R.L. Axelbaum, S.V. Teague, and T.A. Cahill, 1986: Calibration studies of the DRUM impactor. In: *Aerosols, Formation and Reactivity, Proceedings of the Second International Aerosol Conference*, West Berlin, Pergamon Press, Oxford.

Cahill, T.A., and **D.A. Braaten**, 1983: Size characteristics of Asian dust sampled at Mauna Loa Observatory, Hawaii. *Geophysical Monitoring for Climatic Change*, Summary Report, 1982, No. 11, 117-119.

**Braaten, D.A.**, and R.D. Bornstein, 1982: Long-range transport of visibility reducing pollutants in the Southwest. *Third Joint Conference on Applications of Air Pollution Meteorology*, American Meteorological Society, Boston, MA.

**Braaten, D.A.**, 1981: Long range transport of visibility reducing pollutants in the Southwest U.S., M.S. Thesis, San Jose State University, 74 pp.