FIRE-III BIBLIOGRAPHIES

Publications

Ackerman, A. S., O. B. Toon, and P. V. Hobbs, 1995: A model for particle microphysics, turbulent mixing, and radiative transfer in the stratocumulus-topped marine boundary layer and comparisons with measurements, *J. Atmos. Sci*., **52**, 1204-1236.

Ackerman, A. S., O. B. Toon, and P. V. Hobbs, 1995: Numerical modeling of ship tracks produced by injections of cloud condensation nuclei into marine stratiform clouds, *J. Geophys. Res*., **100**, 7121-7134.

Alam, A. and J. A. Curry, 1996: Determination of surface turbulent fluxes over leads in arctic sea ice. *J. Geophys. Res*., submitted.

Arnott, W. P., Y. Y. Dong, and J. Hallett, 1995: Extinction Efficiency in the infrared (2-18 μm) of Laboratory Ice Clouds: Observations of scattering minima in the Christiansen bands of Ice. *Appl. Opt.*, **34**, 541-551.

Barker, H. W., and B. A. Wielicki, 1996: A parameterization for computing grid-averaged longwave fluxes for inhomogeneous marine boundary layer clouds. To be submitted to *J. Atmos. Sci.*

Barker, H. W., B. A. Wielicki, and L. Parker, 1995: A parameterization for computing grid-averaged solar fluxes for inhomogeneous marine boundary layer clouds. Part II: Validation using satellite data. Submitted to *J. Atmos. Sci.*

Baum, B. A., P. Minnis, B. A. Wielicki, J. A. Coakley Jr., P. Menzel, J. Titlow, V. Tovinkere, P. W. Heck, and S. Mayor, 1995: Imager cloud height determination (Subsystem 4.2). "Clouds and the Earth's Radiant Energy System (CERES) Algorithm Theoretical Basis Document, Volume III: Cloud Analyses and Determination of Improved Top-of-Atmosphere Fluxes (Subsystem 4)." *NASA RP 1376 Vol. 3*, CERES Science Team, Ed., in press.

Baum, B. A., T. Uttal, M. Poellot, T. P. Ackerman, J. M. Alvarez, J. Intrieri, D. O'C. Starr, J. Titlow, V. Tovinkere, and E. E. Clothiaux, 1995: Satellite Remote Sensing of Multiple Cloud Layers. J. *Atmos. Sci*., **52**, 4210-4230.

Bechtold, P., S. K. Krueger, W. S. Lewellen, E. van Meijgaard, C.-H. Moeng, D. A. Randall, A. van Ulden, and S. Wang, 1996: First GCSS boundary layer modeling workshop on a stratocumulus-topped PBL: Intercomparison among different 1D codes and LES. Submitted, *Bull. Amer. Meteor. Soc.*

Bretherton, C. S., and M. C. Wyant, 1996: Moisture transport, lower tropospheric stability and decoupling of cloud-topped boundary layers. *J. Atmos. Sci*., submitted.

Cess, R. D., M. H. Zhang, P. Minnis, L. Corsetti, E. F. Dutton, B. W. Forgan, D. P. Garber, W. L. Gates, J. J. Hack, E. F. Harrison, X. Jing, J. T. Kiehl, C. N. Long, J.-J. Morcrette, G. L. Potter, V. Ramanathan, B. Subasilar, C. H. Whitlock, D. F. Young, and Y. Zhou, 1995: Absorption of solar radiation by clouds: Observations versus models. *Science*, **267**, 496-499.

Considine, G. and J. A. Curry, 1995: Effects of sedimentation of cloud droplets on microphysical structure in stratus and stratocumulus clouds. *Quart. J. Roy. Meteor. Soc*., submitted.

Considine, G. and J. A. Curry, 1995: A statistical model of drop size spectra for stratocumulus clouds. *Quart. J. Roy. Meteor. Soc*., in press.

Curry, J. A., W. B. Rossow, D. Randall and J. L. Schramm, 1996: Overview of arctic cloud and radiation characteristics. *J. Climate* , in press.

Duane, G. and J. A. Curry, 1995: Entropy of a convecting water-air system: An approach to the interpretation of cloud-top entrainment. *Quart. J. Roy. Meteor. Soc.*, submitted.

Fairall, C. W., A. B. White, J. B. Edson, and J. E. Hare, 1996: Integrated shipboard measurements of the marine boundary layer. *J. Atmos. Oceanic Technol.*, submitted.

Feingold, G. and S. M. Kreidenweis, 1995: Numerical simulations of stratocumulus processing of cloud condensation nuclei through collision-coalescence. Submitted, *J. Geophys. Res.*

Feingold, G., B. Stevens, W. R. Cotton, and A. S. Frisch, 1995: On the relationship between drop in-cloud residence time and drizzle production in stratocumulus clouds. *J. Atmos. Sci.*, accepted.

Ferrare, R. A., S. H. Melfi, D. N. Whiteman, K. D. Evans, F. J. Schmidlin and D. O'C. Starr, 1995: A Comparison of water vapor measurements made by Raman lidar and radiosondes. *J. Atmos. Oceanic Technol.*, **12**, 1177-1195.

Gollmer, S. M., Harshvardhan, R. F. Cahalan, and J. B. Snider, 1995: Windowed and wavelet analysis of marine stratocumulus cloud inhomogeneity. *J. Atmos. Sci.*, **52**, 3013-3030.

Han, Q-Y., W. B. Rossow, and R. Welch, 1996: Effective sizes of ice cloud particles from ISCCP datasets. *J. Climate*, in preparation.

Heidinger, Andrew K., and S. K. Cox, 1996: Finite cloud effects in longwave radiative transfer. *J. Atmos. Sci.*, accepted.

Jensen, E. J., O. B. Toon, J. D. Spinhirne, and H. Selkirk, 1995: On the formation and persistence of subvisible cirrus clouds near the tropical tropopause. *J. Geophys. Res.*, in press.

Jin, Y., and W. B. Rossow, 1996: Detection of cirrus overlapping low-level clouds. *J. Appl. Meteor.*, in preparation.

Jin, Y., W. B. Rossow, and D. P. Wylie, 1996: Comparison of global high-level cloud distributions from HIRS and ISCCP. *J. Climate*, submitted.

King, M. D., S.-C. Tsay, and S. Platnick, 1995: In situ observations of the indirect effects of aerosol on clouds. *Aerosol Forcing of Climate*, R. J. Charlson and J. Heintzenberg, Eds., John Wiley and Sons, 227–248.

King, M. D., W. P. Menzel, P. S. Grant, J. S. Myers, G. T. Arnold, S. E. Platnick, L. E. Gumley, S.-C. Tsay, C. C. Moeller, M. Fitzgerald, K. S. Brown, and F. G. Osterwisch, 1996: Airborne scanning spectrometer for remote sensing of cloud, aerosol, water vapor and surface properties. *J. Atmos. Oceanic Technol.*, in press.

Kogan, Y. L., M. P. Khairoutdinov, D. K. Lilly, Z. N. Kogan, and Q. Liu, 1995: Modeling of stratocumulus cloud layers in a large eddy simulation model with explicit microphysics. *J. Atmos. Sci.*, **52**, 2923-2940.

Kogan Z. N., D. K. Lilly, Y. L. Kogan, and V. V. Filyushkin, 1995: Study of the effects of cloud microphysics on solar radiative properties of stratocumulus cloud layers. *Atmos. Res.*, **35**, 157-172.

Kosovic, B., 1995: Subgrid-scale modelling of high Reynolds number boundary layer flows. *J. Fluid Mech.*, submitted.

Kropfli, R. A., S. Y. Matrosov, T. Uttal, B. W. Orr, A. S. Frisch, K. A. Clark, B. W. Bartram, R. F. Reinking, J. B. Snider, and B. E. Martner, 1995: Cloud physics studies with 8 mm wavelength radar. *Atmos. Res.*, **35**, 299-313.

Krueger, S. K., C.-W. Su, and P. A. McMurtry, 1995: Linear eddy modeling of entrainment and mixing in cumulus clouds. Submitted, *J. Atmos. Sci.*

Liou, K.-N., 1995: Issues related to parameterization of the radiative properties of ice clouds in GCMs. *World Climate Research Program Proceeding,* in press.

Lubin, D., J. P. Chen, P. Pilewskie, V. Ramanathan, and F. P. J. Valero, 1996: Microphysical examination of excess cloud absorption in the tropical atmosphere. Accepted*, J. Geophys. Res.*.

Macke, A., M. I. Mishchenko, K. Muinonen, and B. E. Carlson, 1995: Scattering of light by large nonspherical particles: Ray-tracing approximation versus T-matrix method. *Opt. Lett.,* **20**, 1934.

Matrosov, S. Y., R. F. Reinking, R. A. Kropfli, and B. W. Bartram, 1996: Estimation of ice hydrometeor types and shapes from radar polarization measurements. *J. Atmos. Oceanic Technol.*, **13**, 85-96.

Minnis, P., D. P. Kratz, J. A. Coakley Jr., M. D. King, R. Arduini, D. P. Garber, P. W. Heck, S. Mayor, W. L. Smith Jr., and D. F. Young, 1995: Cloud optical property retrieval (Subsystem 4.3). "Clouds and the Earth's Radiant Energy System (CERES) Algorithm Theoretical Basis Document, Volume III: Cloud Analyses and Determination of Improved Top-of-Atmosphere Fluxes (Subsystem 4)." *NASA RP 1376 Vol. 3*, CERES Science Team, Ed., in press.

Mishchenko, M. I., and J. W. Hovenier, 1995: Depolarization of light backscattered by randomly oriented nonspherical particles. *Opt. Lett*., **20**, 1356.

Mishchenko, M. I., W. B. Rossow, A. Macke, and A. A. Lacis, 1996: Sensitivity of cirrus cloud albedo, bidirectional reflectance, and optical thickness retrieval accuracy to ice-particle shape. *J. Geophys. Res*., submitted.

Mishchenko, M. I., L. D. Travis, and D. W. Mackowski, 1996: T-matrix computations of light scattering by nonspherical particles: A review. *J. Quant. Spectrosc. Radiat. Transfer*, 55000.

Moeng, C.-H., W. R. Cotton, C. Bretherton, A. Chlond, M. Khairoutdinov, S. Krueger, W. S. Lewellen, M. K. McVean, J. R. M. Pasquier, H. A. Rand, A. P. Siebesma, R. I. Sykes, and B. Stevens, 1996: Simulation of a stratocumulus-topped PBL: Intercomparison of different numerical codes. *Bull. Amer. Meteor. Soc*., **77**, in press.

Paluch, I. R., S. McKeen, D. H. Lenschow, R. D. Schillawski, and G. L. Kok, 1995: Evolution of the subtropical marine boundary layer: Photochemical ozone loss. *J. Atmos. Sci.*, **52**, 2967--2976.

Pilewskie, P., and F. P. J. Valero, 1995: Direct observation of excess solar absorption by clouds. *Science*, **267**, 1626.

Reagan, J., K. Thome, B. Herman, R. Stone, J. DeLuisi, and J. Snider, 1995: A comparison of columnar water vapor retrievals obtained with near-IR solar radiometer and microwave radiometer measurements. *J. Appl. Meteor*., **34**, 1384-1391.

Rossow, W. B., and Y.-C. Zhang, 1995: Calculation of surface and top-of-atmosphere radiative fluxes from physical quantities based on ISCCP datasets, Part II: Validation and first results. *J. Geophys. Res*., **100**, 1167-1197.

Sassen, K., 1995: Lidar cloud research. *Rev. Laser Engin*., **23**, 148-153.

Schwartz, S. E., F. Arnold, J. P. Blanchet, P. A. Durkee, D. J. Hofmann, W. A. Hoppel, M. D. King, A. A. Lacis, T. Nakajima, J. A. Ogren, and O. B. Toon, 1995: Group report: Connections between aerosol properties and forcing of climate. *Aerosol Forcing of Climate*, R. J. Charlson and J. Heintzenberg, Eds., John Wiley and Sons, 251–280.

Shao, Q., and D. A. Randall, 1996: Closed Mesoscale Cellular Convection Driven by Cloud-Top Cooling. Conditionally accepted, *J. Atmos. Sci*.

Shao, Q., D. A. Randall, and C.-H. Moeng, 1996: A new approach to determine the radiative and evaporative cooling rates in the entrainment layer of a stratocumulus-topped boundary layer. Conditionally accepted, *J. Atmos. Sci.*

Shaw, J. A., J. B. Snider, J. H. Churnside, and M. D. Jacobson, 1995: Comparison of infrared atmospheric brightness temperatures measured by a Fourier transform spectrometer and a filter radiometer. *J. Atmos. Oceanic Technol.*.,**12**, 1124-1128.

Spangenberg, D. A., 1995: Verification of upper-tropospheric humidity forecasts in a mesoscale numerical weather prediction model using 6.7 μm satellite observations. Master's thesis, Pennsylvania State University, 100 pp.

Spangenberg, D. A., G. G. Mace, T. P. Ackerman, and N. L. Seaman, 1996: Evaluation of model simulated upper-tropospheric humidity using 6.7 μm satellite observations. To be submitted to *J. Geophys. Res.*

Stevens, B., R. L. Walko, G. Feingold, and W. R. Cotton, 1995: A note on the spurious production of cloud edge supersaturations by Eulerian models. Accepted, *Mon. Wea. Rev.*

Stevens, B., G. Feingold, R. L. Walko, and W. R. Cotton, 1996: Large eddy Simulation of marine stratocumulus cloud with explicit microphysics. *J. Atmos. Sci*., accepted.

Stubenrauch, C. J., A. D. Del Genio, and W. B. Rossow, 1996: Cloud vertical structure inside a GCM grid and its effect on the radiation budget. *J. Climate*, submitted.

Syrett, W. J., B. A. Albrecht, and E. E. Clothiaux, 1995: Vertical cloud structure in a midlatitude cyclone from a 94 GHz radar. *Mon. Wea. Rev*.

Tsay, S.-C., P. M. Gabriel, M. D. King, and G. L. Stephens, 1996: Spectral reflectance and atmospheric energetics in cirrus-like clouds, Part II: Applications of a Fourier-Riccati approach to radiative transfer. Submitted, *J. Atmos. Sci*.

Wang, P.-H., M. P. McCormick, P. Minnis, G. S. Kent, G. K. Yue, and K. M. Skeens, 1995: A method for estimating the vertical frequency of the SAGE II opaque cloud frequency. *Geophys. Res. Lett.*, **22**, 243-246.

Wang, P.-H., M. P. McCormick, P. Minnis, G. S. Kent, and K. M. Skeens, 1995: A 6-year climatology of cloud occurrence frequency from SAGE II observations (1985-1990). Submitted, *J. Geophys. Res*.

Wang, P.-H., P. Minnis, and G. K. Yue, 1995: Extinction (1-μm) properties of high-altitude clouds from solar occultation measurements (1985-1990): Evidence of volcanic aerosol effect. *J. Geophys. Res.*, **100**, 3181-3199.

Wang, Q., and D. H. Lenschow, 1995: An observational study of the role of penetrating cumulus in a marine stratocumulus-topped boundary layer. *J. Atmos. Sci.*, **52**, 2778-2787.

White, A. B., C. W. Fairall, A. S. Frisch, B. W. Orr, and J. B. Snider, 1996: Recent radar measurements of turbulence and microphysical parameters in marine boundary layer clouds. *Atmos. Res*., in press.

Wyant, M. C., C. S. Bretherton, H. A. Rand, and D. E. Stevens, 1996: Numerical simulations and a conceptual model of the stratocumulus to trade cumulus transition. *J. Atmos. Sci.*, submitted.

Xu, K.-M., and D. A. Randall, 1996: A semi-empirical cloudiness parameterization for use in climate models. Conditionally accepted, *J. Atmos. Sci.*

Yang, P., and K.-N. Liou, 1996: A geometric-optics/integral-equation method for light scattering by nonspherical ice crystals. *Appl. Opt.* , submitted.

Yang, P., and K.-N. Liou, 1996: Finite-difference time domain method for light scattering by small ice crystals in three-dimensional space. *J. Opt. Soc. Am. A.*, submitted.

Zhang, Y.-C., W. B. Rossow, and A. A. Lacis, 1995: Calculation of surface and top-of-atmosphere radiative fluxes from physical quantities based on ISCCP datasets, Part I: Method and sensitivity to input data uncertainties. *J. Geophys. Res.*, **100**, 1149-1165.

Technical Reports and Non-Refereed Papers

Alam, A., and J. A. Curry, 1995: Determination of surface turbulent fluxes over leads in arctic sea ice. *J. Geophys. Res.*, submitted.

Considine, G., and J. A. Curry, 1995: Effects of sedimentation of cloud droplets on microphysical structure in stratus and stratocumulus clouds. *Quart. J. Roy. Meteor. Soc.*, submitted.

Duane, G., and J. A. Curry, 1995: Entropy of a convecting water-air system: An approach to the interpretation of cloud-top entrainment. *Quart. J. Roy. Meteor. Soc.*, submitted.

Dutton, E. G., and S. K. Cox, 1995: Tropospheric radiative forcing from El Chichon and Mt. Pinatubo: Theory and observations. *Atmospheric Science Paper No. 586*, Colorado State University, 209 pp.

Eberhard, W. L., 1995: Distinguishing ice and water clouds using dual-wavelength CO2 lidar: Theory. *Coherent Laser Radar, OSA Technical Digest Series*, Keystone, CO, 156-159.

Gerber, H., 1995: Microphysics and modeling of layer clouds. *ETL/CSU Cloud Modeling and Measurements Workshop*, 23-25 Oct., Boulder, CO.

Gillies, S. and S. K. Cox, 1995: Observation and parameterization of solar irradiance in marine stratocumulus and cumulus regimes. *Atmospheric Science Paper No. 590*, Colorado State University, 110 pp.

Kaplan, D. A., 1995: The effects of reflectivity gradients upon detected cloud tops while scanning with a 946 GHz radar. Master's thesis, Penn State University, 88 pp.

Kosovic, B., 1995: Subgrid-scale modelling of high Reynolds number boundary layer flows. *J. Fluid Mech.*, submitted.

Shao, Q. and D. A. Randall, 1995: The effects of cloud-top processes on convection in the cloud-topped boundary layer. *Atmospheric Science Paper No. 573*, Colorado State University, 270 pp.

Stamnes, K., S.-C. Tsay, and W. J. Wiscombe, 1996: A general-purpose, numerically stable computer code for discrete-ordinate-method radiative transfer in scattering and emitting layered media: Documentation of methodology. *NASA Technical Memorandum*, in press.

Starr, D. O'C., B. C. Diehl, A. R. Lare, and B. J. Soden, 1995: Upper tropospheric humidity in the 5-Year GEOS assimilation. Workshop Report, *Third DAO Workshop: Results of the GEOS-1 Five-Year Assimilation*, NASA, Washington, D.C., 5 pp.

Toon, O. B., 1995: Modeling the relationships between aerosol properties and the direct and indirect effects of aerosols on climate. *Aerosol Forcing of Climate Dahlem Workshop. Report ES 17*, R. J. Charlson and J. Heintzenberg, Eds., J. Wiley and Sons, 197-213.

Tsay, S.-C., M. D. King, and P. V. Hobbs, 1995: Arctic Radiation Measurements in Column Atmosphere-Surface System (ARMCAS): Science Plan. *NASA Internal Report*, 18 pp.

Presentations

Ackerman, A. S., and O. B. Toon, 1995: Microphysical modeling of marine stratocumulus: Challenges and prospects. *AMS Conference on Cloud Physics*, Dallas, TX, January 15-20 (p. 159 of preprint volume).

Ackerman, A. S., and O. B. Toon, 1995: Comparisons between MAST observations and ship-track simulations with the Ames 1-D cloud model: Overall trends during the experiment and a case study of the Sanko Peace ship track. *MAST Workshop*, London, England, July 24-27.

Alam, A., and J. A. Curry, 1995: Atmospheric convection from arctic leads. *11th AMS Symposium on Boundary Layers and Turbulence*, Charlotte, NC, March 27-31, 1995, 421-424.

Anikin, P. P., E. V. Romashova, S. K. Cox, and J. M. Davis, 1995: On the Instrumental Determination of Cloud Amount. *IUGG, XXI General Assembly*, Boulder, CO, July 2-14.

Anikin, P. P., M. A. Sviridendov, S. K. Cox, and J. M. Davis, 1995: The Estimation of the Effective Radii of the Particles and Liquid Water Path of Semi- Transparent Clouds. *IUGG, XXI General Assembly*, Boulder, CO, July 2-14.

Arnott, W. P., Y. Y. Dong, R. Purcell, and J. Hallett, 1995: Direct Airborne Sampling of Small Ice Crystals and the Concentration and Phase of Haze Particles. *American Meteorological Society, Ninth Symposium on Meteorological Observations and Instrumentation*, Charlotte, North Carolina, March 1995, 415-420.

Barker, H. W., B. A. Wielicki, L. H. Chambers, G. D. Considine, B. Stevens, and S. K. Krueger, 1996: New approaches to modeling sub-grid scale cloud radiative properties in GCMs for oceanic boundary layer cloud. *International Radiation Symposium*, Fairbanks, AK, Aug 1996 (submitted Dec. 96).

Bretherton, C. S., 1995: Dynamics of the cloud-topped marine boundary layer. *10th Waves and Stability Conference*, 1-2. (Invited paper).

Bretherton, C. S., 1995: Mesoscale organization of marine boundary layer cloud. *2nd GCSS WG1 Workshop*, De Bilt, Netherlands.

Bretherton, C. S., 1995: Entrainment in the marine boundary layer. NCAR *Symposium on Geophysical and Astrophysical Convection*.(Invited paper).

Charlock, T. P., P. Minnis, T. L. Alberta, W. L. Smith Jr., and F. G. Rose, 1995: Local space-time variability of surface and atmospheric radiation: Simulations, input data, and validating observations on public database. *IUGG XXI General Assembly*, Boulder, CO, July 2-14.

Chen, A., S. M. Kreidenweis, and D. A. Randall, 1995: The interaction between aerosol, CCN, and drizzle formation in a marine boundary-layer model. *Fall AGU*, San Francisco, CA, December 11-15.

Considine, G. D. and J. A. Curry, 1995: Impact of boundary layer dynamics on cloud droplet spectra. *11th AMS Symposium on Boundary Layers and Turbulence*, Charlotte, NC, March 27-31, 1995, 244-247.

Cotton, W. R., S. Kreidenweiss, P. Q. Olsson, J. Y. Harrington, M. J. Weissbluth, and G. Feingold, 1995: Challenges to modelling arctic stratus clouds. *NOAA ETL Workshop on Observations and Modeling of the Cloudy Boundary Layer*, October 1995.

Curry, J. A., 1995: Observations and Modeling of the Arctic Cloudy Boundary Layer. *NOAA ETL Workshop on Observations and Modeling of the Cloudy Boundary Layer*, October 1995.

Donner, L. J., 1995: Cirrus clouds in a general circulation model: Radiative transfer and re-vaporization. *XXI General Assembly, International Union of Geodesy and Geophysics*, A240.

Eberhard, W. L., 1995: Distinguishing ice and water clouds using dual-wavelength CO2 lidar: Theory. *Coherent Laser Radar, OSA Technical Digest Series*, Keystone, CO, 156-159.

Eberhard, W. L., 1995: Properties of oriented ice crystals inferred from lidar observations of zenith-enhanced backscatter. *Conference on Cloud Physics*, Institute of Electrical and Electronics Engineers, 1904-1906.

Eberhard, W. L., and J. M. Intrieri, 1995: Cirrus physical and radiative parameters from simultaneous lidar, radar, and infrared 199 radiometer measurements. *Optical Remote Sensing of the Atmosphere*, Salt Lake City, UT, 179-181.

Eberhard, W. L., and J. M. Intrieri, 1995: Cloud parameters from infrared lidar used singly and in combination with radar and infrared radiometer. *2nd Symposium on Combined Optical-Microwave Earth and Atmosphere Sensing*, Atlanta, GA, 129-131.

Evans, K. F., S. J. Walter, and W. R. McGrath, 1996: Submillimeter-wave radiometric sensing of cirrus cloud properties: The JPL prototype cloud ice radiometer. *8th Conference on Satellite Meteorology*, American Meteorological Society, Atlanta, GA, January 28 -- February 2.

Frisch, A. S., C. W. Fairall, J. B. Snider, and D. H. Lenschow 1995: Stratus cloud measurements with a Ka-Band Doppler radar and a microwave radiometer. *4th Atmospheric Radiation Measurement ARM Science Team Meeting*, Charleston, S. C., 149-150.

Frisch, S, C. Fairall, T. Uttal, T. MacPherson, and J. Snider, 1995: Vertical profiles of liquid water and effective radius in stratus clouds determined from a cloud sensing radar and microwave radiometer. *IUGG XXI General Assembly*, Boulder, CO, A242.

Gerber, H., 1995: Microphysics and modeling of layer clouds. Proceedings, *ETL/CSU Cloud Modeling and Measurements Workshop*, 23-25 Oct., Boulder, CO.

Hallett, J., J. G. Hudson, and R. Pueschel, 1995: Aerosol in Tropical Cirrus. *XXI General Assembly of IUGG*, July 2-14, 1995, Boulder, CO.

Han, Y., J. B. Snider, E. R. Westwater, S. H. Melfi, and R. A. Ferrare, 1995: Comparisons of brightness temperature measurements and calculations obtained during the spectral radiance experiment, *Fourth Atmospheric Radiation Measurement ARM Science Team Meeting*, Charleston, SC., 181-184.

Han, Y., J. B. Snider, E. R. Westwater, S. H. Melfi, and R. A. Ferrare, 1995: Comparison of measurements of water vapor by a microwave radiometer and Raman lidar, *2nd Topical Symposium on Combined Optical-Microwave Earth and Atmosphere Sensing CO-MEAS*, Atlanta, GA.

Heidinger, A. K. and S. K. Cox, 1995: The Parameteriation of Longwave Finite Cloud Effectsin Numerical Weather and Climate Prediction Models. *IUGG XXII General Assembly*, July 2-14, 1995, Boulder, CO.

Jensen, E. J. and O. B. Toon, 1995: The potential impact of heterogeneous ice nucleation on cirrus cloud lifetimes and radiative properties. *Atmospheric Effects of Aviation Meeting*, Virginia Beach, VA, June 27-31.

Jensen, E. J., O. B. Toon, H. Selkirk, and L. Pfister, 1995: Dehydration of the upper troposphere and lower stratosphere by thin cirrus clouds near the tropical tropopause. *Conference on Cloud Physics*, American Meteorological Society, January 15-20, Dallas, TX.

Khairoutdinov, M. F. , Y. L. Kogan, D. K. Lilly, 1995: Comparison of the explicit and parameterized formulation of microphysics using a large-eddy simulation model of cloud-topped boundary layer. Preprints, *Conference on Cloud Physics*, American Meteorological Society, January 15-20, Dallas, TX.

Kogan, Y. L. and B. N. Sergueev, 1995: The equation for the bulk density of ice particles in numerical cloud models. Preprints, *Conference on Cloud Physics*, American Meteorological Society, January 15-20, Dallas, TX.

Kogan, Y. L., M. F. Khairoutdinov, D. K. Lilly, Z. N. Kogan, and Q. Liu, 1995: Study of the effects of stratocumulus cloud layer dynamics on microphysics using a 3-D large-eddy simulation model with explicit microphysics. *Conference on Cloud Physics*, American Meteorological Society, January 15-20, Dallas, TX.

Kogan, Z. N., Y. L. Kogan, and D, K. Lilly, 1995: Simulations of stratocumulus clouds with emphasis on aerosols as cooling influence on atmosphere. Preprints, *Conference on Cloud Physics*, American Meteorological Society, January 15-20, Dallas, TX.

Kogan, Z. N., Y. L. Kogan, and D, K. Lilly, 1995: Evaluating Aerosol Indirect Effect through Marine Stratocumulus Clouds. *5th ARM Science Team Meeting*, San Diego, CA, March 20-23.

Kosovic, B., 1995: Redefined subgrid-scale term and nonlinear model for large-eddy simulation of stable boundary layers. *11th AMS Symposium on Boundary Layers and Turbulence*, Charlotte, NC, March 27-31, 406-408.

Krueger, S. K., and C.-H. Chen, 1995: Testing a boundary layer cloud parameterization using CEM results. Proceedings, *Workshop on Microphysics in GCMs*, WCRP, Kananaskis, Alberta, Canada, (in press).

Krueger, S. K., and P. A. McMurtry, 1995: Dynamic linear eddy modeling of convective boundary layers. Preprints, *11th AMS Symposium on Boundary Layers and Turbulence*, Charlotte, N. C., 63-66.

Krueger, S. K., C.-W. Su, and P. A. McMurtry, 1995: Linear eddy modeling of entrainment and mixing in cumulus clouds. Preprints, *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20, 559-564.

Lin, R.-F., 1995: A Tropical Cirrus Model. Preprints, *21st Conference on Hurricanes and Tropical Meteorology*, American Meteorological Society, Miami, FL, April 24-28, 60-62.

Liu, Q., Y. L. Kogan, D. K. Lilly, 1995: The effects of surface moisture flux on the stratocumulus cloud layer microphysical properties. Preprints *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20.

Liu, Q., Y. L. Kogan, D. K. Lilly, 1995: Reducing the numerical dispersion of the cloud droplet spectrum in condensation calculations. Preprints, *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20.

Mace, G. G., T. P. Ackerman, B. A. Albrecht, D. M. Babb, and R. M. Peters, 1995: An examination of cirrus cloud characteristics observed by a 94 ghz doppler cloud radar. Preprints, *27th Conference on Radar Meteorology*, American Meteorological Society, Vail, CO, October 9-13, 544-546.

Macke, A. and M. I. Mishchenko, 1995: The applicability of geometric optics in terms of particle shape and refractive index. *Workshop "Non-spherical particle shapes in atmospheric radiative transfer,"* Neustrelitz, Germany, June 8-9.

Macke, A., J. Mueller, M. Mishchenko, and C. Stubenrauch,1995: Modeling of the radiative properties of cirrus clouds. *Workshop "Recent Problems in Radiative Transfer"*" Berlin, Germany, October 23-26.

Macke, A., J. Mueller, and K. Nagel, 1995: Radiative properties of broken cloud fields, *Recent Problems in Radiative Transfer Workshop*, Berlin, Germany, October 23-26.

Minnis, P., W. L. Smith Jr., D. F. Young, D. P. Garber, and P. W. Heck, 1995: Cloud particle size retrievals using satellite data during ARM IOPs. *5th Annual ARM Science Team Meeting*, San Diego, CA, March 20-23.

Mishchenko, M. I. and A. Macke, 1995: Scattering of light by large nonspherical particles: ray-tracing approximation versus T-matrix method. *MISR Science Team Meeting*, JPL, Pasadena, CA June 5-9.

Mishchenko, M. I., W. B. Rossow, A. Macke, and A. A. Lacis,1995: Effect of particle nonsphericity on bidirectional reflectance of cirrus clouds. *1995 ARM Science Team Meeting*, San Diego, CA, March 19-23.

Mishchenko, M. I., L. D. Travis, and D. W. Mackowski, 1995: T-matrix computations of light scattering by nonspherical particles: A review. *Light Scattering by Non-Spherical Particles Workshop*, Amsterdam, May 2-3 (Invited talk).

Ovtchinnikov, M. V., Y. L. Kogan, and B. N. Sergueev, 1995: Study of the ice nucleation mechanisms in a 3-d cloud model with explicit formulation of ice-phase and warm rain microphysics. Preprints, *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20.

Pincus, R., M. D. King, and S. C. Tsay, 1996: In situ measurements of the absorption of solar radiation in stratiform water cloud. *International Radiation Symposium,* Fairbanks, AK.

Rand, H. A., C. S. Bretherton, M. C. Wyant, and D. Stevens, 1995: Mesoscale dynamics and fractional cloudiness in the marine boundary layer. Proceedings, *11th Amer. Meteor. Soc. Symp. on Boundary Layer Processes*, 248-251.

Randall, D. A., 1995: Bulk Models. *NCAR Summer Colloquium on the PBL and its Parameterization*, National Center for Atmospheric Research, Boulder, CO.

Randall, D. A., 1995: PBL in Climate Modeling. *NCAR Summer Colloquium on the PBL and its Parameterization.*, National Center for Atmospheric Research, Boulder, CO.

Randall, D. A., M. D. Branson, and C. Zhang, 1995: Tests of a new bulk boundary layer parameterization in the CSU GCM. *UCLA-U. Tokyo Workshop on the Climate of the Pacific Basin*, Honolulu, HI, December 18-20.

Sassen, K., 1995: Combined microwave and optical remote sensing of clouds: A review. *2nd Topical Meeting on Combined Optical-Microwave Earth and Atmosphere Sensing*, Atlanta, GA, IEEE Proceeding, pg. 123-125.

Schneider, T. L. and G. L. Stephens, 1996: Climatically relevant clouds as seen by a spaceborne radar, lidar and submillimeter-wave radiometer. *International Radiation Symposium*, Fairbanks, AK, August.

Schneider, T. L., S. J. Walter, and G. L. Stephens, 1996: Submillimeter-wave properties of the clear troposphere. *International Radiation Symposium*, Fairbanks, AK, August.

Shapiro, A., and Y. L. Kogan, 1995: Simulation of cloud mergers in a three-dimensional numerical model. Preprints, *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20.

Smith, W. L., Jr., P. W. Heck, D. F. Young, and D. P. Garber, 1995: An improved method for deriving nocturnal cloud properties from geostationary satellite data. *IUGG XXI General Assembly*, Boulder, CO, July 2-14.

Snider, J. B., D. A. Hazen, A. J. Francavilla, W. B. Madsen,and M. D. Jacobson, 1995: Comparison of observed and theoretical millimeter wave emission: Implications for remote sensing of atmospheric water. *International Geoscience and Remote Sensing Symposium '95*, Firenze, Italy, 1129-1132.

Snider, J. B., D. A. Hazen, A. J. Francavilla, W. B. Madsen, and M. D. Jacobson, 1995: Ground-based radiometric observations of atmospheric water for climate research. Proceedings, *Fourth Atmospheric Radiation Measurement ARM Science Team Meeting*, Charleston, SC, 287-290.

Starr, D. O'C., 1995: Upper Tropospheric Humidity in the 5-Year GEOS Assimilation. *Third DAO Workshop: Results of the GEOS-1 Five-Year Assimilation*, Greenbelt, MD, March, 1995.

Starr, D. O'C., 1995: FIRE cirrus cloud studies. *FIRE Science Team Meeting*, Baltimore, MD, May, 1995.

Starr, D. O'C., 1995: Justification for a Tropical Cirrus Experiment. *FIRE Science Team Meeting*, Baltimore, MD, May, 1995.

Su, C.-W., S. K. Krueger, P. H. Austin, and P. A. McMurtry, 1995: Linear eddy modeling of droplet spectral evolution during turbulent mixing in cumulus clouds. Preprints, *Conference on Cloud Physics*, American Meteorological Society, Dallas, TX, January 15-20, 565-568.

Sviridenkov, M. A., P. P. Anikin, S. K. Cox, and J. M. Davis, 1995: Determination of optical and microphysical parameters of semi-transparent clouds from spectral measurements of solar radiation transmission. *IUGG, XXI General Assembly*, Boulder, CO, July 2-14, 1995.

Tsay, S. C., 1995: Measuring and modeling surface bidirectional reflectance. *Workshop of Department of Energy - Atmospheric Radiation Measurement*, Reston, VA.

Wang, Q., 1995: On the role of penetrating cumulus in marine stratocumulus-topped boundary layers. *XVIII Pacific Science Congress*, Beijing, China, June 5--12.

Wang, Q., 1995: A theoretical study of cloud-top entrainment. *IUGG, XXI General Assembly*, Boulder, CO, July 2-14.

Wang, Q., 1995: Aircraft observations of boundary layer turbulence structure from ASTEX. *Cloud Modeling and Measurement Workshop*, NOAA/ETL, Boulder, CO, October 23-25, 1995.

White, A. B., and C. W. Fairall, 1996: Observations of regional and local variability in the optical properties of maritime clouds. Proceedings, *Fifth Atmospheric Radiation Measurement Program Science Team Meeting*, San Diego, CA, Mar. 20-23.

Wielicki, B. A., and L. Parker, 1996: Effects of sensor spatial resolution on satellite derived estimates of cloud fraction and cloud optical depth for cirrus and marine boundary layer clouds. Submitted to *International Radiation Symposium*, Fairbanks, AL, August.

Wyant, M. C., C. S. Bretherton, R. Pincus, H. A. Rand, and D. Stevens, 1995: Fractional cloudiness in multi-day 2D LES simulations of the cloud-topped boundary layer. Proceedings, *11th Amer. Meteor. Soc. Symp. on Boundary Layer Processes*, 232-235.

Xu, K.-M., and D. A. Randall, 1995: Use of explicit simulation of cloud ensembles for developing a cloudiness parameterization. *IUGG Symposium on Clouds, Convection, and Large-Scale Land Surface Processes*, Boulder, CO.