PROGRAM

EIGHTH CONFERENCE ON PROBABILITY AND STATISTICS IN ATMOSPHERIC SCIENCES OF THE AMERICAN METEOROLOGICAL SOCIETY

NOVEMBER 16-18, 1983, HOT SPRINGS NATIONAL PARK, ARK.

AMS National Officers President: Earl G. Droessler President-Elect: Eugene W. Bierly
Executive Director: Kenneth C. Spengler

AMS Committee on Probability and Statistics

Richard W. Katz, Chairman	Paul R. Julian	G. Louis Smith
A. C. McMillan	Robert Livezey	Michael B. Richman
Paul R. Lowe	Paul W. Mielke	Grace Wahba

Synopsis of Sessions

Nov 15	Tues	7:00 pm	Registration
	Tues	8:00 pm	Icebreaker
Nov 16	Wed	8:00 am	Registration continues
	Wed	9:00 am	Session 1: Probability Distributions
	Wed	10:00 am	Spouses' Coffee
	Wed	10:50 pm	Session 2: Objective Analysis
	Wed	1:30 pm	Session 3: Spatial and Temporal Models
	Wed	4:00 pm	Session 4: Satellite Meteorology
Nov 17	Thurs	8:30 am	Session 5: Joint Session with Applied Climatology Conference
	Thurs	1:30 pm	Session 6: Statistical Forecasting
	Thurs	4:00 pm	Session 7: Numerical Weather Prediction
	Thurs	5:00 pm	Icebreaker and Banquet
Nov 18	Fri	8:30 am	Session 8: Probability Forecasting
		10:40 pm	Session 9: Air Pollution and Visibility

General Information

The 8th Conference on Probability and Statistics, sponsored by the American Meteorological Society, will be held 16-18 November 1983 at the Arlington Hotel & Baths in Hot Springs, Arkansas. The Conference will be held concurrently with the Third Conference on Applied Climatology.

Accomodations

All sessions will be held at the Arlington Hotel in Hot Springs. A block of rooms has been set aside for the meeting at the following special rates: Single, $36; Double, $42; Holiday Suite, $90-150; Parlor 1BR Suite, $175-225. We urge you to request the written confirmation of your reservation and to bring it with you to the hotel. A first night's deposit is advised, and necessary if arrival after 6:00 pm. Kindly make your reservation prior to 24 October 1983 by writing directly to: Arlington Hotel & Baths, P.O. Box 5652, Hot Springs, Arkansas 71901 (telephone: 501-623-7771 or to toll free 1-800-643-1502). Be sure to mention the American Meteorological Society's name when making your reservations.

Registration

The conference registration desk will be open Tuesday, 15 November, from 7:00 pm to 9:00 pm, and on Wednesday, Thursday, and Friday from 8:00 am to 5:00 pm. Registration fees, including Thursday's lunch are: AMS members, speakers, and session chairmen, $70; nonmembers, $95; local Arkansas members, $50; undergraduate and graduate students, $40. We urge you to pre-register by sending the appropriate remittance, together with your name, address, and affiliation, to American Meteorological Society, 45 Beacon Street, Boston, Massachusetts 02108, Attention: Eighth Conference on Probability and Statistics in Atmospheric Sciences.

Transportation

Hot Springs is situated between I30 and I40, 58 miles west of Little Rock. Little Rock is served by American, Continental, Delta, Frontier, Scheduled Skyways, Inc., Trans Central, and Trans World Airlines. Hot Springs/Little Rock shuttle bus is available, about one hour to the Arlington. For those wishing to fly to Hot Springs, there are daily flights by Scheduled Skyways, Inc., from Memphis or Dallas/Fort Worth. Hot Springs Memorial Field Airport is three miles southwest of the city.

Spouses' Coffe

A coffee get-together for spouses, family, and guests of conference registrants will be held on Wednesday, 16 November, at 10:00 am. Room information will be available at the AMS registration desk. There is no formal social program planned. The coffee get-together will enable guests to become acquainted and to plan tours, should they wish. Information on tours and activities available in Hot Springs will be available at the hotel.

Icebreaker

An Icebreaker (cash bar) will be held Tuesday evening, 15 November, at 8:00 pm in the hotel.

Banquet

There will be a Banquet on Thursday, 17 November, at 6:00 pm, preceded by a Cocktail Reception (cash bar) at 5:00 pm.

PROGRAM

Tues Nov 15 7:00 pm — **Registration**

Wed Nov 16 8:00 am — **Registration continues**

Wed Nov 16 9:00 am — **Session 1: Probability Distributions**

Chairman: Sharon K. LeDuc, Assessment and Information Services Center/National Environmental Satellite and Data Information Services (NESDIS)/NOAA, Columbia, MO.

1.1 On power transformations of gamma distributed variables. N. Aleksic and M. Jovanovic, Institute of Meteorology, Belgrade, Yugoslavia.

1.2 Estimating a family of distributions. S. J. Bean, Univ. of Central Florida, Orlanda, Fla.

1.3 A comparison of least squares estimation techniques for Weibull parameters. S. J. Bean and P. N. Somerville, Univ. of Central Florida, Orlando, Fla.

1.4 A probabilistic perspective of extreme precipitation. G. A. Harper, T. F. O'Hara, and J. H. Snooks, Yankee Atomic Electric, Framingham, Mass.

Wed Nov 16 10:00 am — **Coffee Break**

Wed Nov 16 10:50 am — **Session 2: Objective Analysis**

Chairman: Michael B. Richman, Illinois State Water Survey, Champaign, Ill.

2.1 Estimates of the mean field of artic sea ice motion. R. Colony and A. S. Thorndike, Univ. of Washington, Seattle, Wash.

2.2 Optimum interpolation objective analysis structure function estimation. L. A. Hembree, Univ. of North Dakota, Grand Forks, N. Dak.

2.3 On field-dependent covariance structure models. P. R. Julian, NCAR, Boulder, Colo.; and H. J. Thiebaux, Dalhousie Univ., Halifax, N. S., Canada.

2.4 The application of Chebyshev polynomials in irregular grids in the forecast of precipitation distribution over the middle and lower reaches of the Changjiang River. J. Zhou, Academia Sinica, Beijing, P.R.C.

Wed Nov 16
12:00 pm

Lunch

Wed Nov 16
1:30 pm

Session 3: Spatial and Temporal Models

Chairman: G. Louis Smith, Langley Research Center/NASA, Hampton, Va.

3.1 Time series models of hourly wind speed and wind power. B. G. Brown, R. W. Katz, and A. H. Murphy, Oregon State Univ., Corvallis, Ore.

3.2 Lineal and areal probabilities of weather conditions. C. F. Burger and I. I. Gringorten, Air Force Geophysical Lab. (AFGL), Hanscom AFB, Mass.

3.3 Uses of historical data in weather modification evaluation. C.-F. Hsu and S. A. Changnon, Jr., Illinois State Water Survey, Champaign, Ill.

3.4 An analysis of the space and time variation of growing season rainfall in the central United States. P. J. Lamb and M. B. Richman, Illinois State Water Survey, Champaign, Ill.

3.5 Use of the Box-Cox transformation in determining the functional form of the dependence of oceanic whitecap coverage on several environmental factors. I. O'Muircheartaigh and E. C. Monahan, University College, Galway, Ireland.

3.6 Rotation of principal components in climatological research. Part I: Theoretical considerations, suitable applications, and advantages over unrotated solutions. M. B. Richman, Illinois State Water Survey, Champaign, Ill.

Wed Nov 16
3:10 pm

Coffee Break

Wed Nov 16
4:00 pm

Session 4: Satellite Meteorology

Chairman: Paul R. Julian, NCAR, Boulder, Colo.

4.1 Use of a Monte-Carlo driven photochemical model to compare satellite data on temperature variability and ozone variability. I. J. Eberstein, Goddard Space Flight Center (GSFC)/NASA, Greenbelt, Md.

4.2 Effect of incorrect atmospheric transmittance on minimum variance satellite temperature retrievals. H. E. Fleming and D. S. Crosby, NESDIS/NOAA, Washington, D.C.

4.3 Spatial spectra of earth-emitted radiation at mesoscale and synoptic scales. G. L. Smith and P. Minnis, Langley Research Center/NASA, Hampton, Va.

Thurs Nov 17
8:30 am

Session 5: Joint Session with Applied Climatology

Chairmen: Richard W. Katz, Oregon State Univ., Corvallis, Ore.; and Wayne M. Wendland, Illinois State Water Survey, Champaign, Ill.

5.1 A new tool for the management and study of climate-related data. L. V. Novak, L. A. Treinish, and P. H. Smith, GSFC/NASA, Greenbelt, Md.

5.2 Analysis of daily precipitation data to support decisions regarding management fires in USDA-Forest Service wilderness areas. K. T. Redmond and A. H. Murphy, Oregon State Univ., Corvallis; and J. E. Deeming, Pacific Northwest Forest and Range Experiment Station, Portland, Ore.

5.3 An atlas and guide for fire management planning. B. Ryan, Pacific Southwest Forest and Range Experiment Station, Riverside, Calif.

5.4 Range reference atmosphere models. O. E. Smith, Marshall Space Flight Center (MSFC)/NASA. Huntsville, Ala.

5.5 A climatological analysis system for decision makers. V. R. Swail, A. Saulesleja, and T. Mathews, Canadian Climate Centre, Downsview, Ont., Canada.

Thurs Nov 17 10:00 am **Coffee Break**

Thurs Nov 17 10:40 am **Session 5 (continued)**

5.6 Strategies for determining climatic groupings. V. French and S. K. LeDuc, Assessment and Information Services Center, NESDIS/NOAA, Columbia, Mo.

5.7 Rotation of principal components in climatological research. Part II: How the various analytic simple structure rotations on the major statistical packages compare on different types of data. M. B. Richman, Illinois State Water Survey, Champaign, Ill.

5.8 Estimating the significance of seasonal precipitation amounts using approximations of the inverse gamma function over an extended range. C. F. Ropelewski, Climate Analysis Center, National Weather Service (NWS)/NOAA, Washington, D.C.; and J. B. Jalickee, Advanced Systems Laboratory, NWS/NOAA, Silver Spring, Md.

5.9 Estimating effects of weather, prices, and conservation on natural gas homeheating bills. H. E. Warren and S. K. LeDuc, Assessment and Information Services Center NESDIS/NOAA, Columbia, Mo.

Thurs Nov 17 12:00 pm **Lunch**

Thurs Nov 17 1:30 pm **Session 6: Statistical Forecasting**

Chairman: Allan H. Murphy, Oregon State Univ., Corvallis, Ore.

6.1 Diagnostic studies of the influence of station climatology on Markov forecast procedure. A. S. Allegrino and D. R. Rodenhuis, Univ. of Maryland, College Park, Md.

6.2 Multi-dichotomy variant of stepwise discriminant and its application to long-range weather forecasting. H. Cao, Central Meteorological Bureau, Beijing; and Z. Yang, Chinese Academy of Sciences, Beijing, P.R.C.

6.3 Low-level stratus prediction using binary statistical regression. D. P. Gaver and P. A. Jacobs, Naval Postgraduate School, Monterey, Calif.

6.4 Results of testing alternate cut-off criteria for terminating the selection of additional predictors in forward stepwise (screening) regression. W. H. Klein, Univ. of Maryland, College Park, Md.

6.5 A critical look at GEM. R. G. Miller, T. J. Perrone, and D. L. Best, Techniques Development Laboratory/NWS/NOAA, Silver Spring, Md.

6.6 On weak conditional independence and its application to statistical weather prediction. S. Wang, Academia Sinica, Beijing, P.R.C.

Thurs Nov 17 2:50 **Coffee Break**

Thurs Nov 17 4:00 pm

Session 7: Numerical Weather Prediction

Chairman: William H. Klein, Univ. of Maryland, College Park, Md.

7.1 Statistical-dynamical predictions from synoptic and assimilated observations in a two-level baroclinic atmosphere. T. A. Gleeson, Florida State Univ., Tallahassee, Fla.

7.2 Model verification statistics tailored for operational forecasters. P. A. Harr, T. L. Tsui, and L. R. Brody, Naval Environmental Prediction Research Lab. (NEPRF), Monterey, Calif.

7.3 Comparison of univariate and multivariate techniques for correction of systematic errors in extended range numerical weather prediction. R. E. Livezey and T. N. Maisel, Climate Analysis Center/NWS/NOAA, Washington, D.C.

Thurs Nov 17 5:00 pm

Icebreaker and Banquet

Fri Nov 18 8:30 am

Session 8: Probability Forecasting

Chairman: Robert E. Livezey, Climate Analysis Center/NWS/NOAA, Washington, D.C.

8.1 Verification results of regression estimation of event probability equations as applied to a variety of operational problems. R. C. Gilchrist and L. J. Pijor, Environmental Technical Application Center (ETAC), Scott AFB, Ill.

8.2 Statistical medium range forecasting of the probability of precipitation in the Netherlands. S. Kruizinga, Koninklijk Nederlands Meteorogisch Instituut (KNMI), De Bilt, The Netherlands.

8.3 A comparative evaluation of statistical procedures for defining probability prediction functions. P. R. Lowe, NEPRF, Monterey, Calif.

8.4 Probability forecasts: Recent developments, current issues, and future prospects. A. H. Murphy, Oregon State Univ., Corvallis, Ore.

8.5 Assessment of operational REEP/MDA probability of precipitation forecasts. L. J. Wilson and H. Stanski, Atmospheric Environment Service (AES), Downsview, Ont., Canada.

Fri Nov 18 9:50 am

Coffee Break

Fri Nov 18 10:40 am

Session 9: Air Pollution and Visibility

Chairman: Paul R. Lowe, NEPRF, Monterey, Calif.

9.1 Statistical identification and interpretation of meteorological scenarios for local high SO_2 levels. T. J. Barker and A. C. McMillan, Ont. Hydro, Toronto, Ont., Canada.

9.2 Predicting maximum pollutant concentrations using the joint probability of meteorological variables. S. Batterman and D. Golomb, Massachusetts Institute of Technology (MIT), Cambridge, Mass.

9.3 Assessing the uncertainty of model results used in air pollution regulatory decisions--an application of the 'bootstrap' technique. C. S. Burton, T. E. Stoeckenius, and A. D. Thrall, Systems Applications, San Rafael, Calif.

9.4 Modeling ambient carbon dioxide trends to evaluate automobile emission controls. M. Downton and R. Dennis, NCAR, Boulder, Colo.

9.5 An applictation of statistics to the determination of visibility and obstructions to vision. R. Lewis, Test and Evaluation Division/NWS/NOAA, Sterling, Va.

PROGRAM

THIRD CONFERENCE ON APPLIED CLIMATOLOGY OF THE AMERICAN METEOROLOGICAL SOCIETY, NOVEMBER 16-18, 1983, HOT SPRINGS, ARK.

AMS National Officers President: Earl G. Droessler President-Elect: Eugene W. Bierly
Executive Director: Kenneth C. Spengler

AMS 1983 Committee on Applied Climatology & Program Committee: Wayne M. Wendland, Chairman; Arnold Court; Robert F. Dale; Nathaniel B. Guttman; Paul Janota; Owen Rhea; Peter J. Robinson; Marie Sanderson; Ward Seguin

Local Arrangements Nelson Devilliers; Sol Guttierez; Newton Skiles; Sandra Chandler; Cheryl Little

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Nov 15	Tues	7:00 pm	Registration
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Nov 16	Wed	8:00 am	Registration continues
	Wed	8:30 am	Session 1: Hydroclimatology
	Wed	10:00 am	Spouses' Coffee
	Wed	1:30 pm	Session 2: Climate Prediction
	Wed	7:30 pm	Session 3: Analyses of Ciimatic Data-I
Nov 17	Thurs	8:30 am	Joint Session with Probability & Statistics Conference
	Thurs	1:30 pm	Session 4: Stressful Climates
	Thurs	5:00 pm	Icebreaker and Banquet
Nov 18	Fri	8:30 am	Session 5: Analyses of Climatic Data-II
		1:30 pm	Session 6: Climatic Information

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PROGRAM

Tues Nov 15 7:00 pm **Registration**

Wed Nov 16 8:00 am **Registration continues**

Wed Nov 16 8:30 am **Session 1: Hydroclimatology**

Chairman: Marie Sanderson, Univ. of Windsor, Ont., Canada

1.1 A comparison of the Palmer Drought Index and accumulated precipitation for climatic applications. T. B. McKee and N. J. Doesken, Colorado State Univ., Ft. Collings, Colo.

1.2 A near real-time index of precipitation deficiency using accumulated monthly precipitation. J. E. Janowiak and C. F. Ropelewski, Climate Analysis Center, Washington, D.C.

1.3 Geographical distribution of extreme rainfall rates. D. M. Hershfield, Hydrology Lab., USDA-ARS, Beltsville, Md.

1.4 Soil moisture: Should climatology extend below the surface? L. K. Hendrie, Illinois State Water Survey, Champaign, Ill.

Wed Nov 16 10:00 am **Coffee Break**

Wed Nov 16 10:20 am **Session 1 (continued)**

1.5 Using the water budget to analyze cropping patterns in Kansas. K. M. McGregor, North Texas State Univ., Denton, Tex.

1.6 Description of winter precipitation characteristics in the upper Colorado River basin. G. E. Klazura, Bureau of Reclamation, Denver, Colo.

1.7 Some effects of ground moisture anomalies on spring convective rainfall events over the southern Great Plains. J. M. Lanicci and T. N. Carlson, Pennsylvania State Univ., University Park, Penn.

1.8 Augmenting Potamac River streamflow records using tree rings. E. R. Cook, Lamont-Doherty Geological Observatory of Columbia Univ., Palisades, N.Y.

1.9 Reconstructing past streamflow from trees. W. M. Wendland, Illinois State Water Survey, Champaign, Ill.

Wed Nov 16 12:00 pm **Lunch**

Wed Nov 16 1:30 pm **Session 2: Climate Prediction**

Chairman: Peter J. Robinson, Univ. of North Carolina, Chapel Hill, N.C.

2.1 Bayesian prediction applied to simple linear regression: Monthly mean North American snow cover. E. S. Epstein, National Environmental Satellite, Data, and Information Service (NESDIS)/NOAA, Washington, D.C.

2.2 Teleconnection at seasonal lag. P. H. Chan and L. S. Chiu, Applied Research Corporation, Landover, Md.; and K. M. Lau, Goddard Laboratory for Atmospheric Sciences, Greenbelt, Md.

2.3 Month-to-month changes in equations for specifying surface temperature from 700 mb data. W. H. Klein, Univ. of Maryland, College Park, Md.

2.4 A double-blind test of a climate forecast model. B. P. Hayden, Univ. of Virginia, Charlottesville, Va.

Wed Nov 16 3:10 pm **Coffee Break**

Wed Nov 16 3:30 pm **Session 2 (continued)**

2.5 Seasonal forecast skill in the United States as a product of climatological contingencies. M. P. Lawson and K. F. Dewey, Univ. of Nebraska, Lincoln, Nebr.

2.6 Detecting skill in climate forecasts. A. R. Boehm, USAF Environmental Technical Applications Center (ETAC), Scott AFB, Ill.

2.7 Conditional probability of climatic data in Illinois. R. W. Scott, Illinois State Water Survey, Champaign, Ill.

2.8 Applying seasonal climate forecasts to natural resources management. W. E. Riebsame, Univ. of Wyoming, Laramie, Wyo.

2.9 Current products for climate applications. J. D. Laver and F. G. Finger, National Meteorological Center, Washington, D.C.

Wed Nov 16 7:30 pm **Session 3: Analyses of Climatic Data-I**

Chairman: Arnold Court, California State Univ., Northridge, Calif.

3.1 The effects of observation time upon mean temperature calculations: Implications for climate/energy studies. G. P. Byrd, Univ. of Oklahoma, Norman, Okla.; and P. O. Harvey and J. V. Melito, State Univ. College, Oneota, N.Y.

3.2 Correcting monthly average temperature biases caused by differing times of observation. T. Blackburn, National Weather Service (NWS)/NOAA, Silver Spring, Md.

3.3 The effects of serial correlation in chi-square goodness-of-fit tests on distributions from different periods of record. L. G. Luempert III, ETAC, Scott AFB, Ill.

3.4 A comparison of methods for objective analysis of climatological probability data. D. P. Regan, ETAC, Scott AFB, Ill.

Thurs Nov 17 8:30 am **Joint Session with Probability and Statistics Conference**
Also published in Session 5 of Probability and Statistics program

Chairmen: Richard W. Katz, Oregon State Univ., Corvallis, Ore.; and Wayne M. Wendland, Illinois State Water Survey, Champaign, Ill.

J.1 A new tool for the management and study of climate-related data. L. V. Novak, L. A. Treinish, and P. H. Smith, Goddard Space Flight Center (GSFC)/NASA, Greenbelt, Md.

J.2 Analysis of daily precipitation data to support decisions regarding management fires in USDA-Forest Service wilderness areas. K. T. Redmond and A. H. Murphy, Oregon State Univ., Corvallis; and J. E. Deeming, Pacific Northwest Forest and Range Experiment Station, Portland, Ore.

J.3 An atlas and guide for fire management planning. B. Ryan, Pacific Southwest Forest and Range Experiment Station, Riverside, Calif.

J.4 Range reference atmosphere models. O. E. Smith, Marshall Space Flight Center (MSFC)/NASA, Huntsville, Ala.

J.5 A climatological analysis system for decision makers. V. R. Swail, A. Saulesleja, and T. Mathews, Canadian Climate Centre, Downsview, Ont., Canada.

Thurs Nov 17 10:00 am **Coffee Break**

Thurs Nov 17 10:40 am **Joint Session (continued)**

J.6 Strategies for determining climatic groupings. V. French and S. K. LeDuc, Assessment and Information Services Center, NESDIS/NOAA, Columbia, Mo.

J.7 Rotation of principal components in climatological research. Part II: How the various analytic simple structure rotations on the major statistical packages compare on different types of data. M. B. Richman, Illinois State Water Survey, Champaign, Ill.

J.8 Estimating the significance of seasonal precipitation amounts using approximations of the inverse gamma function over an extended range. C. F. Ropelewski, Climate Analysis Center, NWS/NOAA, Washington, D.C.; and J. B. Jalickee, Advanced Systems Laboratory, NWS/NOAA, Silver Spring, Md.

J.9 Estimating effects of weather, prices, and conservation on natural gas homeheating bills. H. E. Warren and S. K. LeDuc, Assessment and Information Services Center NESDIS/NOAA, Columbia, Mo.

Thurs Nov 17 12:00 pm **Lunch**

Thurs Nov 17 1:30 pm **Session 4: Stressful Climates**

Chairman: W. Seguin, Technical Development Lab., NWS/NOAA, Washington, D.C.

4.1 Thunderstorm characteristics in the contiguous United States. M. J. Changery, National Climatic Center, Asheville, N.C.

4.2 Spatial and temporal variation of thunderstorm frequencies over North America. S. A. Changnon, Jr., and Chin-Fei Hsu, Illinois State Water Survey, Champaign, Ill.

4.3 Application of television surveillance and magnetic direction finder technology to the study of lightning activity near electric power lines. P. D. Falconer, Associated Weather Service, Albany; F. A. Rushden, W. S. Fleming and Associates, Inc., Syracuse; and R. E. Orville, State Univ. of New York at Albany (SUNYA), N.Y.

4.4 A radar-based climatology of thunderstorm days across New York state. P. D. Falconer, Associated Weather Service, Albany, N.Y.

Thurs Nov 17 2:50 pm — **Coffee Break**

Thurs Nov 17 3:10 pm — **Session 4 (continued)**

4.5 Applications of hail-day data to insurance industry. S. A. Changnon, Jr., Illinois State Water Survey, Champaign, Ill.

4.6 Drought monitoring in Colorado for state decision making. N. J. Doesken and T. B. McKee, Colorado State Univ., Ft. Collins, Colo.

4.7 Desert dust and climate: Some environmental problems in Arizona. A. J. Brazel, Arizona State Univ., Tempe, Ariz.

4.8 Climate information and prediction: Needs of the gas industry. J. A. Laurmann, Gas Research Institute, Chicago, Ill.

4.9 Climatic opportunities for long-range migrations of moths. R. A. Muller and E. H. Atkins, Louisiana State Univ., Baton Rouge, La.

Thurs Nov 17 5:00 pm — **Icebreaker and Banquet**

Fri Nov 18 8:30 am — **Session 5: Analyses of Climatic Data-II**

Chairman: Nathaniel Guttman, National Climatological Data Center, Asheville, N.C.

5.1 A simple approach for a synthetic climatology. G. Tetzlaff, Der Universitat Hannover, West Germany.

5.2 A climatological determination of heavy fog tendencies. M. B. Meyer, SUNYA, N.Y.

5.3 Intercomparisons of marine wind data sets. V. R. Swail, L. D. Mortsch, and D. A. Carr, Canadian Climate Centre, Downsview, Ont., Canada.

5.4 Modelling the onset, advance and retreat of the main rains on coastal Guyana. A. B. Shaw, Wilfrid Laurier Univ., Waterloo, Ont., Canada.

Fri Nov 18 9:50 am — **Coffee Break**

Fri Nov 18 10:10 am — **Session 5 (continued)**

5.5 Estimating microwave relay route fading occurrence. J. A. Schiavone, Bell Laboratories, Murray Hill, N.J.

5.6 Evaluation of a technique to estimate mixing depths from surface data. R. W. Fisher, Environmental Protection Agency (EPA) Region VIII, Denver, Colo.

5.7 Duration analysis in applied climatology. T. R. Karl and R. G. Quayle, National Climatic Data Center, Asheville, N.C.

5.8 Reacting to recent Illinois climate anomalies-studies and findings. J. L. Vogel, S. Hilberg, and S. A. Changnon, Jr., Illinois State Water Survey, Champaign, Ill.

Fri Nov 18 12:00 pm — **Lunch**

Fri Nov 18 1:30 pm

Session 6: Climate Information

Chairman: Robert F. Dale, Purdue Univ., West Lafayette, Ind.

6.1 On the present and potential use of climate information by the U.S. private agricultural sector. P. J. Lamb, S. T. Sonka, and S. A. Changnon, Jr., Illinois State Water Survey, Champaign, Ill.

6.2 Assessment of climatic data needs of selected user groups in Louisiana. R. C. Thompson and R. A. Muller, Louisiana State Univ., Baton Rouge, La.

6.3 Climate information for state agencies. P. J. Robinson, Univ. of North Carolina, Chapel Hill, N.C.

6.4 Illinois real-time climate information system. J. L. Vogel, W. M. Wendland, and S. A. Changnon, Jr., Illinois State Water Survey, Champaign, Ill.

Fri Nov 18 2:50 pm

Coffee Break

Fri Nov 18 3:10 pm

Session 6 (continued)

6.5 Estimating the mean and variance of degree day variables from temperature data. R. L. Lehman, Climate Analysis Center/NWS, Washington, D.C.

6.6 The relative effects of proportional population changes in the U.S. on potential heating, cooling and water demand. H. F. Diaz and R. L. Holle, Environmental Research Laboratories (ERL)/NOAA, Boulder, Colo.

6.7 A cumulative weather index and its application in assessing climate fluctuation impact on cereal yields. F. N. Kogan, United States Department of Agriculture (USDA), Columbia, Mo.

6.8 Equivalent chill temperature--a new application. H. J. Snelling, USAF Environmental Technical Applications Center, Scott AFB, Ill.

6.9 The use of effective temperature to determine the length of air conditioning season. G. Myles, ETAC, Scott AFB, Ill.
