meeting summary

The Second Annual Ohio Severe Weather Symposium at The Ohio State University

Jeffrey C. Dobur

NOAA/National Weather Service, Ohio River Forecast Center, Wilmington, Ohio

The Ohio State University Atmospheric Sciences Program held Ohio's Second Annual Severe Weather Symposium on 17 April 1998 at the Ohio Union Conference Theatre. The continuing purpose of the conference is to gather meteorologists from across the Ohio Valley to discuss severe weather and identify ways to improve forecasting and communication between various groups and the public. The symposium was again the work of undergraduate students within the Atmospheric Sciences Program at The Ohio State University.

The agenda featured a number of highly respected speakers from various agencies.

Dr. K. Bedford, chairman of the Department of Civil Engineering and Geodetic Sciences, gave an excellent overview of the Great Lakes Forecast Center at The Ohio State University. He talked of improving forecasts of storm surge on the Great Lakes while discussing the importance of these forecasts to the many users of such information.

S. Davidson, representative from the Ohio Red Cross, and G. Tune, representative from the National Branch of the Red Cross, provided an interesting look into the preparation, impact, and aftermath of a severe weather event. They gave an excellent illustration of the wide spectrum of problems that exist after a major severe weather outbreak and described their planning and preparation for such events and their procedures to help people affected.

M. Bettes, broadcast meteorologist for WSYX-TV Channel 6, M. Davis, chief meteorologist for WBNS-10TV, and B. Gelber, broadcast meteorologist for

WCMH-NBC4, discussed how media operations deal with severe weather and how they interact with the National Weather Service. They recounted past severe weather events and discussed how their stations plan to improve under such circumstances in the future.

K. Haydu, meteorologist-in-charge at the Forecast Office in Wilmington, Ohio, M. Sabones, meteorologist-in-charge at the Forecast Office in North Webster, Indiana, and B. Comeaux, meteorologist-in-charge at the Forecast Office in Cleveland, Ohio, talked in a panel discussion about ways that the National Weather Service Modernization Plan is using better technology to improve forecasts and provide more timely severe weather warnings. They answered a variety of questions from the audience about past severe weather cases and how they prepare for a day of severe weather.

J. Noel, hydrometeorologist with the Ohio River Forecast Center, gave an interesting illustration of the use of precipitation efficiency in forecasting heavy rainfall potential. He discussed how well the parameter did with a number of flooding events, showing the audience comparisons between the model parameter and the observed rainfall.

H. Stein, researcher and professional storm chaser, was a true highlight of the event for the audience. He had a large variety of pictures—from tornadoes to wall clouds to baseball-sized hailstones. He also discussed his profession and work at the University of Oklahoma and gave some rules on what to do and what not to do during storm chasing.

Our final, and keynote, speaker was D. McCarthy, mesometeorologist from the Storm Prediction Center in Norman, Oklahoma. He discussed two topics for the audience: a look at the Storm Prediction Center's operations, and the climatology and pattern of Ohio tornado activity. He provided an intriguing talk filled with interesting historical data and past research.

Corresponding author address: Jeffrey C. Dobur, NOAA/National Weather Service, Ohio River Forecast Center, 1901 South State Rt. 134, Wilmington, OH 45177.

E-mail: dobur@ohrfc.noaa.gov

©1998 American Meteorological Society

The Second Annual Severe Weather Symposium was once again a success. Meteorologists and others dealing with hazardous and severe weather were again able to meet to exchange ideas on ways to improve warning dissemination and to address the issue of human recovery after major events. Coming together

and learning from each other made for another interesting and beneficial conference.

Next year's symposium will feature the 25th anniversary of the SuperOutbreak of 1974. For more information, contact J. Dobur at dobur@ohrfc.noaa.gov or M. Ryan at ryan.130@osu.edu.

Stochastic Lagrangian Models of Turbulent Diffusion

Meteorological Monograph No. 48

by Howard C. Rodean

Until now, atmospheric scientists have had to learn the mathematical machinery of the theory of stochastic processes as they went along. With this monograph, atmospheric scientists are given a basic understanding of the physical and mathematical foundations of stochastic Lagrangian models of turbulent diffusion. The culmination of four years of research, *Stochastic Lagrangian Models of Turbulent Diffusion* discusses a historical review of Brownian motion and turbulent diffusion; applicable physics of turbulence; definitions of stochastic diffusion; the Fokker-Planck equation; stochastic differential equations for turbulent diffusion; criteria for stochastic models of turbulent diffusion; turbulent diffusion in three dimensions; applications of Thompson's "simplest" solution; application to the convective boundary layer; the boundary condition problem; and a parameterization of turbulence statistics for model inputs.

©1996 American Meteorological Society. Hardbound, B&W, 84 pp., \$55 list/\$35 members (includes shipping and handling). Please send prepaid orders to: Order Department, American Meteorological Society, 45 Beacon St., Boston, MA 02108-3693.

**American
Meteorological
Society**