

Turbulence, Wind Shear, Toxin Attacks, and Other Things that Go Bump in the Night: Applied Research for Real-Life Problems

> Wednesday, July 28 2010, 7:00 pm Boulder Public Library Main Library's Canyon Theater

"Science Serving Society" Lecture Series Celebrating NCAR's 50th Anniversary

William P. Mahoney, III National Center for Atmospheric Research



Between 1970 and 1994, 573 people died when their planes dropped mysteriously out of the sky, seemingly batted down by a terrifying, invisible force. In the 1980s, NCAR scientists studied the phenomena – microbursts – and developed radar to detect them and warn pilots to steer clear. The death rate from this dangerous weather phenomenon went to zero. This is just one example of societal problems being addressed through research at the National Center for Atmospheric Research (NCAR).

This talk will highlight some of NCAR's applied research success stories from the past 30 years as well as research challenges ahead. These include solving the problem of weather-related road transportation crashes and pile-ups, assisting energy companies with the optimal location and placement of wind farms, predicting the spread of wildfires to save lives and property, and detecting toxic plumes released by terrorists in urban areas in time to warn innocent people.

Bill Mahoney is a Program Director at the National Center for Atmospheric Research, Research Applications Laboratory (NCAR/RAL), located in Boulder, Colorado. He has been involved in research and development activities at NCAR since he was a graduate student at the University of Wyoming, and now directs weather research and development programs in aviation, surface transportation, fire weather, social sciences, agriculture, intelligent forecast systems, and renewable energy. He led several FAA and international government sponsored aviation safety programs in Hong Kong, Taiwan, Korea, and Singapore with a particular emphasis on terminal and enroute weather decision support systems to detect wind shear, clear air turbulence and icing.

This talk is sponsored by the University Corporation for Atmospheric Research (UCAR). This year, UCAR and the National Center for Atmospheric Research (NCAR) celebrate 50 years of discovery and the application of scientific research to serve society.

For more information, contact Laura Curtis: lcurtis@ucar.edu or 303-497-2106