

About the Doppler On Wheels



hurrucane wind streaks, and resolution of detailed tornado structure and evolution in 3D.

Featured prominently in the film *Tornado Alley*, the DOW radar vehicles served as the backbone of the VORTEX2 research mission by mapping the overall structure and dynamics of severe storms, the DOW radars allowed scientists to identify locations where tornadoes might form, and helped guide other researchers to position their vehicles and instruments in a tornado's path.

In addition to a large, rotating radar dish and an impressive antenna, the DOW vehicles have a radar operations "cockpit" that visitors can climb into. Depending on availability, the DOW team may also bring additional mobile weather measurement tools (tornado pods, weather balloons, disdrometers (used to measure precipitation, etc.).



About the Scientists

In addition to a vehicle operator/technician, the DOW will be accompanied by either Dr. Joshua Wurman or Dr. Karen Kosiba, both featured scientists from the film *Tornado Alley*.

Dr. Joshua Wurman, President, Center for Severe Weather Research. Dr. Wurman designed the Doppler On Wheels mobile radars to observe tornadoes, hurricanes and other phenomena from close range, and has pioneered the mapping of tornadic winds and vortices. In addition to his role in the Discovery Channel's Storm Chasers series, Josh and his work have been featured in numerous television shows and documentaries produced by the Discovery Channel, PBS (*Nova*), the History Channel, and National Geographic, among others. Wurman was also a featured scientist in the IMAX film, *Forces of Nature*. He is President of the Center for Severe Weather Research located in Boulder, Colorado.

Dr. Karen Kosiba, Senior Research Meteorologist, Center for Severe Weather Research. Karen is an atmospheric scientist at the Center for Severe Weather Research in Boulder, CO. Her research mainly focuses on characterizing the low-level wind structure in tornadoes and in hurricanes. This is accomplished through the use of mobile radar observations and numerical modeling. Karen received a B.S. in physics at Loyola University, a M.S. in physics and a M.A.T. in teacher education at Miami University, and a Ph.D. in atmospheric science at Purdue University.

A strong believer in experiencing weather firsthand, she has participated in a multitude of field projects, Additionally, she is passionate about science education and has maintained the NSF VORTEX2 blog and has appeared in the Science Storms exhibition at the Museum of Science and Industry in Chicago, IL.