



Venue Safety and Extreme Weather

Presented By: Mike Smith / Senior Vice President, Chief Innovation Executive, Certified Consulting Meteorologist / Accuweather Enterprise Solutions

Please allow me to begin this blog post by thanking IAVM for allowing me to present on venue safety and extreme weather at the Severe Weather Preparedness program in Dallas. I had a wonderful time meeting great people while evangelizing on a subject close to my heart.

For those unable to attend the Dallas meeting, I am the senior vice president and chief innovation executive for AccuWeather Enterprise Solutions Inc., based in Wichita, Kansas. We specialize in tailoring site-specific warnings of extreme weather for venues and dozens of other industries. In 2014, we provided warnings for more than 1,000 venue events. In addition, I provide consultations to companies that want to improve their severe weather procedures or even understand how extreme weather affects their guests.

The amount of progress weather science has made in providing accurate, actionable storm warnings during the last 10 years is nothing short of remarkable. Combine that progress with social science research into the most effective ways of communicating warning messages to an assemblage, and venue managers now have effective tools that will prevent injuries, lessen liability, and, whenever possible, assure the show goes on.

If there is one thought you take away from this post, it is that every venue needs a weather plan that accounts for each type of activity hosted by the venue. This could range from a circus to a concert to a major league game. Each will have its unique challenges and "lead time" (the interval from notification of a storm to the storm's arrival) for implementing safety measures.

Each plan has five components:

- Determining lead time and unique aspects of each type of event
- Weather monitoring
- Communicating weather information to your guests
- Sheltering your guests
- What to do if "the worst" happens.

Bitter experience in recent years demonstrates the plan should require:

- If storm X threatens, then we do A.
- If storm Y threatens, then we do B.
- If storm Z threatens, then we do C.

Where X, for example, indicates lightning or another specific type of storm.

By specifying, in advance, procedures in your plan, it negates the temptation to respond with what you want to happen as opposed to what is most likely to happen.

The second item I would like you to take away is to use minutes rather than miles to trigger safety actions. If you use, for example, 10 miles as an alerting radius, a storm moving at 70 mph may not give you enough time. A storm moving at 10 mph may dissipate before arriving, causing a false alarm. So, ask your provider to provide, say, 15 minutes of warning rather than a fixed radius.

And, while it is counterintuitive, make your storm-related decisions based on input from one or, at most, two trusted sources. Peer-reviewed research demonstrates this is far more effective than using a plethora of sources. A large number of sources (e.g., six or more) allows decision makers (often subconsciously) to “shop” for the forecast they want rather than what is meteorologically the most likely.



About the Author

Michael Smith, Senior Vice President and Chief Innovation Executive, leads advanced research in severe weather detection for AccuWeather Enterprise Solutions.

Known as “America’s Tornado Expert”, Mike is one of America’s leading authorities in the field of extreme weather and its effects on society and business. He has received 21 patents in the fields of weather science, emergency management, and search and rescue.

A board-certified consulting meteorologist and a Fellow of the American Meteorological Society, Mike received the AMS award for Outstanding Contribution to the Advance of Applied Meteorology and, twice, their award for Outstanding Service to Meteorology by a Corporation.

In 1981, Mike founded WeatherData, Inc. Under his leadership, the company pioneered pinpoint severe-weather warning services and technologies serving transportation, manufacturing, government, and more. WeatherData was acquired by AccuWeather in 2006, becoming AccuWeather Enterprise Solutions, and Mike stayed on to help build AES into America’s leading provider of commercial weather services.

Mike is the author of two books, *When the Sirens Were Silent* and *Warnings: The True Story of How Science Tamed the Weather*. Mike is a frequent speaker and author on both popular and technical weather-related topics. He has appeared on The Discovery Channel, The History Channel, Fox News, and all of the major networks.

Mike knew he would be a meteorologist at the age of five when a major tornado moved through his neighborhood. After receiving his meteorology degree from the University of Oklahoma, he worked as a television meteorologist in St. Louis, Oklahoma City, and Wichita and is the second person ever to do a live telecast of a tornado. Mike lives in Wichita, KS and is married with three grown children.