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NCAR Invites Public to View New Thunderstorm Traveling Exhibit Before Launching It at Major U.S. Airports, Science Museums

A major new exhibit, titled *Thunderstorm Detectives*, will be unveiled in the main lobby of NCAR on November 24 and be on display through December 8. The exhibit is one of two identical displays that will travel to major airports and science museums around the United States over the next two years. The second display began its national tour at the American Museum of Science and Energy in Oak Ridge, Tennessee, on November 13.

Thunderstorm Detectives showcases a new system that was developed at NCAR for detecting and warning aircraft pilots of hazardous weather conditions, the Terminal Doppler Weather Radar (TDWR). The exhibit documents the development of the radar system through the use of video footage of dynamic weather processes, computer-aided thunderstorm simulators, scientific tools, hands-on devices, and profiles of individuals who developed the TDWR system.

As visitors enter the 1500-square-foot exhibit, they are greeted by large photo murals of towering cumulonimbus clouds. Making their way through the section entitled "Storm Dynamics," visitors can view a computer-aided simulation of a thunderstorm to explore how storms develop.

The "Microburst" section of the exhibit, complete with a simulator that allows visitors to create their own small-scale microburst, invites visitors to share in the discovery of this powerful weather phenomenon that eluded scientists until the 1970s. Microbursts are the most dangerous form of wind shear. Intense and small in scale (often less than a mile across), they can originate in harmless-looking cumulus clouds, as well as in thunderstorms. What causes these often-invisible, incredibly powerful bursts? Why are they so difficult to detect? Unraveling the mystery of microbursts, visitors discover answers to these questions as they follow clues discovered by researchers.

In the "Terminal Doppler Weather Radar" section, visitors walk into a simulated air traffic control tower, seeing first-hand how the system works to make the air traffic controller's job easier during potentially dangerous situations. A video explains how pilots benefit from the radar's weather information and warnings. The exhibit also highlights programs designed to train air traffic controllers, aviation meteorologists and pilots.

Thunderstorm Detectives was developed by NCAR with support from NSF's Informal Science Education Program and the Federal Aviation Administration. NCAR is sponsored by NSF. The exhibit's nationwide tour is managed by the Association of Science-Technology Centers. The exhibit will be open to the public from November 24 to December 8 in the lobby area of NCAR between 8:00 a.m. and 5:00 p.m. weekdays (including Thanksgiving Day) and from 9:00 a.m. to 3:00 p.m. weekends.

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