

NATIONAL WEATHER CENTER - THE PROGRAMS

The National Weather Center is a unique confederation of federal, state, and University of Oklahoma organizations that work together in partnership to improve understanding of events occurring in Earth's atmosphere over a wide range of time and space scales.

Long recognized for its collective expertise in severe weather, the National Weather Center also has expertise in local and regional climate, numerical modeling, hydrology, and radar meteorology. Members of the National Weather Center work with a wide range of federal, state, and local government agencies to help reduce loss of life and property to hazardous weather, insure wise use of water resources, agricultural production, and develop renewable energy sources.

The NWC partners give equal attention to applying that understanding to the development of improved observation, analysis, assimilation, display, and prediction systems.

NWC also works with private sector partners to develop new applications of weather and improved observation, analysis, assimilation, display, and prediction systems.

The National Weather Center organizations employ over 650 men and women and injects about \$45 million annually into the State of Oklahoma's economy.

Notable accomplishments of the National Weather Center include:

- Demonstrating that Doppler weather radar can be a useful tool in the detection of tornadoes, hail, and other severe weather events
- Developing numerical forecast models of thunderstorms and other mesoscale phenomena for government and industry applications, using Doppler radar data as primary initialization
- Working in partnership with Oklahoma State University to operate and extend applications of the Oklahoma Mesonet, an operational statewide mesoscale environmental observing system
- Continually developing upgrades to the national network of weather surveillance Doppler radars, including retrofitting polarimetric capabilities
- Demonstrating the utility of rapidly deployable, truck-mounted radars for research
- Developing the Phased Array Radar technology for weather research

