

RADAR OPERATIONS CENTER

The NEXRAD Radar Operations Center in Norman, Okla. provides centralized meteorological, computer software, maintenance and engineering support for all 158 operational NEXRAD (WSR-88D) radar systems deployed worldwide. Supported by the Department of Commerce, Transportation and Defense, the ROC is responsible for modifying and enhancing the WSR-88D systems during their operational life to meet changing requirements, technology advances and improved understanding of the application of these systems to real-time weather operations.

The ROC also operates and maintains WSR-88D test systems for the development of hardware and software upgrades to enhance maintenance, operation and provide new functionality. The facility houses a 24 hour, seven days a week help desk that assists radar sites with technical support. The ROC also provides or arranges for depot-level maintenance support for field sites.

Vital Tool for Forecasters

Radar is an important and unique tool for weather forecasters. It helps them look inside storms and remotely measure the motion of the atmosphere as well as the number and size of raindrops and snowflakes. Data from radars provide not only the strength and the type of the storm, but also the location. This information is used by forecasters to provide warnings for severe thunderstorms, flash floods and tornadoes.

The large, powerful radars known as NEXRAD, short for Next Generation Weather Radar, are located throughout the United States, Alaska, Hawaii, Puerto Rico and select Department of Defense locations overseas. The formal name of the radar is the WSR-88D, which stands for Weather Surveillance Radar-1988, for the year the engineering design was established, and Doppler. This S-Band radar is considered the best in the world because of its accuracy and reliability. The Doppler capability in the radar provides more information to forecasters about the winds in storms than was previously available.

The WSR-88D radars are used by forecasters working for the National Oceanic and Atmospheric Administration's National Weather Service, as well as the Federal Aviation Administration and the military. The radars have been placed strategically to cover the entire United States. Together, they form a network, which allows data from different radars to be combined into one picture.

ROC Provides Critical Support

The people at the Radar Operations Center keep the radars running smoothly and assist field maintenance staff with fixing them when they break. The WSR-88D is a complicated piece of equipment and requires experts to keep it working. Field operations staff using and maintaining the radar can call the Radar Operations Center's help desk any time- 24 hours a day - and receive guidance from our meteorologists and technicians to help fix their radar or resolve operation questions. This "hotline" has operated non-stop for more than 10 years and averages 1,000 requests for assistance per month. They are very good at solving problems quickly and helping fix broken radars.