

## Overview of the WSR-88D and Missions the WSR-88Ds Support

To meet the Nation's need for detailed weather surveillance, Weather Surveillance Radar-1988 Doppler (WSR-88D) radars have been installed at 159 operational and 8 support locations across the United States and select overseas sites. These radars are the product of the Next Generation Weather Radar (NEXRAD) Program, a joint effort of the Departments of Commerce (DOC), Defense (DOD), and Transportation (DOT) – the NEXRAD tri-agencies. The WSR-88Ds are often referred to as “NEXRADs.”

These radars scan the atmosphere continuously and provide real-time display of products that have enabled weather forecasters to improve the detection of and give greater advanced warning of tornadoes, flash floods, and other severe weather events. For example, since the establishment of the WSR-88D network, the average National Weather Service warning lead time for tornadoes has increased from 5 minutes to 13 minutes. A recent independent analysis indicates the network of WSR-88D radars has reduced the number of deaths due to tornados by 45% annually and the number of injuries due to tornados by 40% annually since their installation.

WSR-88D data are used to support DOD operations and provide advance notice of severe weather for personnel safety and resource protection. The data are also key for the safe and efficient operation of the National Airspace System. Beginning in 2002, data from the WSR-88Ds have been displayed on the operational screens of Federal Aviation Administration air traffic controllers.