



NOAA *Backgrounder*

Forecasting Tornadoes

Through a tremendous investment in research, observing systems such as the WSR-88D Doppler radar, and forecasting technology, the National Oceanic and Atmospheric Administration's National Weather Service issues more than 15,000 severe storm and tornado watches and warnings each year. The average lead time for warnings has increased from six to 12 minutes from 1994 to 2001. This means that individuals and communities have more time to prepare for tornadoes by seeking shelter and securing property, thereby reducing loss of life and limiting the economic costs of property damage.

A WORD ABOUT NOAA. . .

The National Oceanic and Atmospheric Administration (NOAA) conducts research and gathers data about the global oceans, atmosphere, space, and sun, and applies this knowledge to science and service that touch the lives of all Americans.

NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources, and conducts research to improve our understanding and stewardship of the environment which sustains us all.

A Commerce Department agency, NOAA provides these services through five major organizations: the National Weather Service, the National Ocean Service, the National Marine Fisheries Service, the National Environmental Satellite, Data and Information Service, and Office of Oceanic and Atmospheric Research; and numerous special program units. In addition, NOAA research and operational activities are supported by the Nation's seventh uniformed service, the NOAA Corps, a commissioned officer corps of men and women who operate NOAA ships and aircraft, and serve in scientific and administrative posts.

For further information: NOAA Office of Public Affairs, 14th Street and Constitution Avenue NW, Room 6013, Washington, D.C. 20230. Phone: (202) 482-6090.

Several centers and laboratories within NOAA are dedicated to research efforts to further improve forecasts and daily forecast operations to protect life and property.

Storm Prediction Center

NOAA's Storm Prediction Center (SPC), located in Norman, Okla., provides short-term guidance products for hazardous weather over the contiguous United States. The Center coordinates with National Weather Service (NWS) field offices around the country for short-term aspects of hazardous weather such as flash floods, thunderstorms, tornadoes, winter storms, blizzards and freezing precipitation. The SPC is the primary NWS center of expertise for forecasting hazardous weather and economically-disruptive weather events. The Center makes maximum use of observations, numerical forecast models, Doppler Radar and geostationary satellites to generate forecasts. By creating timely and accurate guidance of hazardous weather across the continental United States, the SPC helps NWS field offices effectively accomplish their public safety functions. In addition to working with National Weather Service field offices and other National Centers, the Storm Prediction Center collaborates with local, national and international meteorological communities, various NOAA offices and academia. The Storm Prediction Center provides internal scientific support and techniques development. This support includes developing, evaluating and testing forecast methods. The Center also enhances its operations and trains meteorologists and customers to use SPC products.

continued from previous page

National Weather Service Forecast Offices

National Weather Service Forecast Offices play a vital role in issuing severe weather forecasts and warnings. One-hundred twenty-one modernized forecast offices across the country issue tornado warnings and watches to ensure emergency managers and the general public receive the most accurate and timely information to get out of harm's way. Current weather watches and warnings from local forecast offices are available on the Internet at <http://weather.gov>.

National Severe Storms Laboratory

NOAA's National Severe Storms Laboratory (NSSL) is one of the National Oceanic and Atmospheric

Administration's internationally-known Environmental Research Laboratories, leading the way in investigations of all aspects of severe weather. Headquartered in Norman, Okla., with staff in Boulder, Colo.; Seattle, Wash.; Salt Lake City, Utah; and Madison, Wis., the people of NSSL, in partnership with the National Weather Service, are dedicated to improving the Nation's severe weather warnings and forecasts in order to save lives and reduce property damage.

The NSSL and the SPC work together closely to make sure the latest scientific advances are rapidly incorporated into severe weather watches. This close cooperation between the two centers will continue to improve severe weather forecasts to the American people. ☺

For more information contact National Weather Service public affairs at (301) 713-0622 or Keli Tarp, NOAA's Storm Prediction Center, at (405) 366-0451.

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